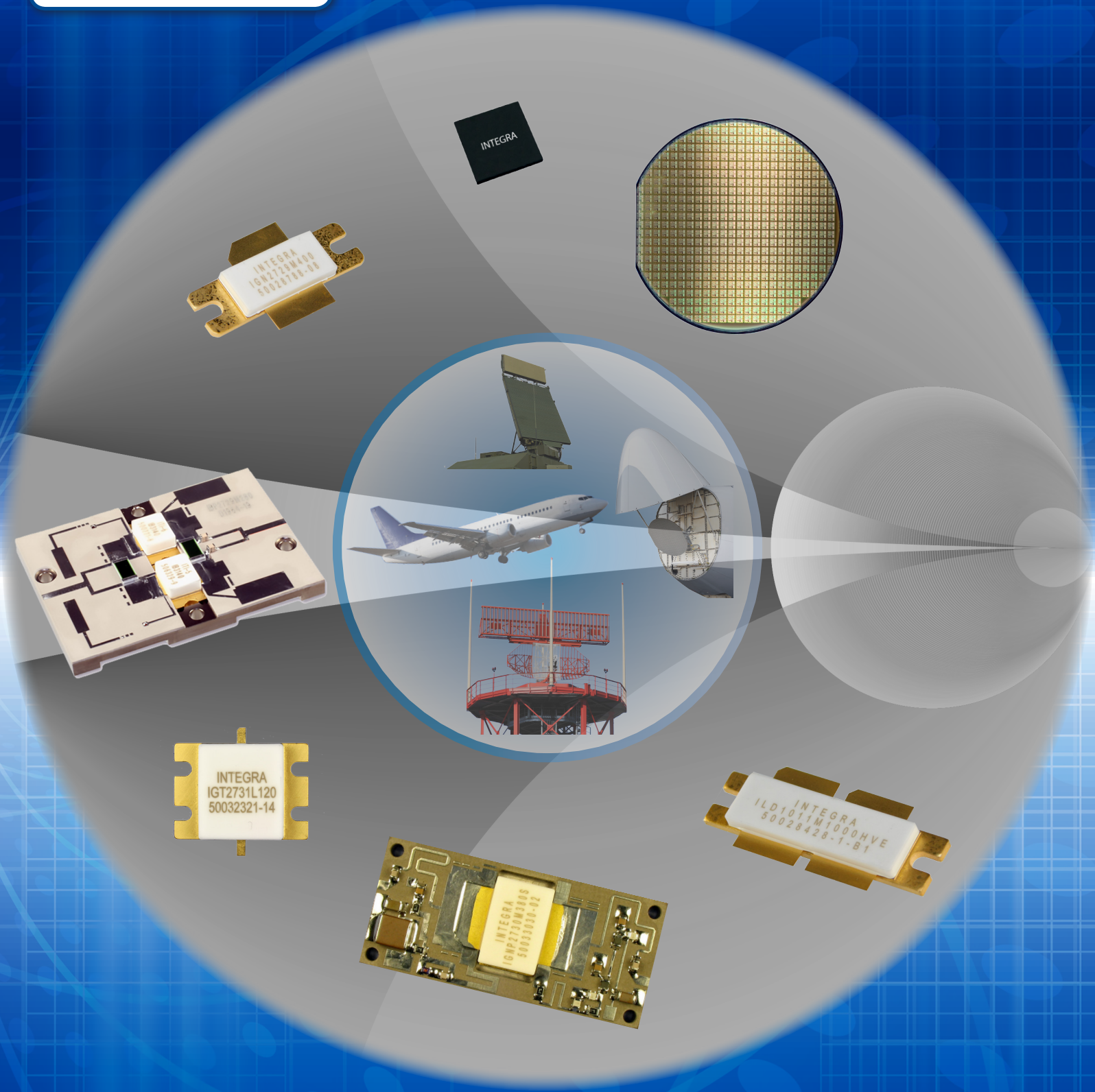
Integra
TECHNOLOGIES, INC.



High-Power RF Semiconductor Solutions

sales@integratech.com +1 (310) 606-0855 www.integratech.com

Powering your RF Applications

Integra TECHNOLOGIES, INC.

- **High Performance Portfolio Optimized for Integra's Core Markets**
  - Multi-stage and multi-band power pallets
  - High-power RF transistors
  - Sub-system amplifiers
  - Designed specifically for Radar, Avionics, and Data link markets
  - Frequencies covering VHF, UHF, L-Band, S-Band, and C-band

- **Standard and Custom RF Power Pallets and Transistors**
  - Pallets ranging up to 2.0kW
  - Transistors ranging up to 1.4kW
  - Standard and custom options available

- **Widest Range of RF Power Semiconductor Technologies**
  - GaN/SiC, Si-LDMOS, Si-VDMOS, and Si-Bipolar
  - Technology portfolio optimized to deliver best RF power performance
- **Technology Roadmap Expansion**
  - X-band portfolio in 2017
  - Plastic package options
- **Domestic internal wafer fab and external foundry partners**
  - Internal wafer fab and external foundry partners
- **Deep Domain and Applications Knowledge**
  - Reference designs ranging from transistors to full amplifier pallets
  - Product sample and evaluation kits
  - 100% Custom testing with serialized RF data supplied
- **Proven Record of Success**
  - 20-year history of delivering high-power products for production platforms fielded worldwide
  - ISO:9001 2008 Certified

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GaN/SiC Transistor Products

Part Number	Frequency Band	Output Power (minimum)	Pulse width & Duty factor	Gain (typical)	Efficiency (typical)	Voltage	Matching	Package
VHF/UHF and Broadband Communication								
IGN450M160	**420-450 MHz**	**160W**	**100µs, 10%**	**22dB**	**77%**	**50V**	**Input**	**PL44C1**
IGN0110UM100	100-1000 MHz	100W	CW	13dB	55%	28V	None	PL22D1
IGN0160UM10	100-6000 MHz	10W	CW	18dB	50%	50V	None	PL21A1
L-band Avionics and L-band Radar								
IGN1030M40	1030 MHz	40W	300µs, 10%	22dB	65%	50V	Input	PL32A2
IGN1030L800	1030 MHz	800W	48x (32µs On, 18µs Off), 6.4%	17dB	65%	50V	Input	PL84A1
IGN1030L1000	1030 MHz	1000W	48x (32µs On, 18µs Off), 6.4%	17dB	65%	50V	Input	PL84A1
IGN1011M400	1030-1090 MHz	400W	128µs, 2%	16dB	65%	50V	Input	PL64A1
IGN1011M600	1030-1090 MHz	600W	128µs, 2%	16dB	65%	50V	Input	PL64A1
IGN1011M800	1030-1090 MHz	800W	128µs, 2%	16dB	60%	50V	Input	PL84A1
IGN1090M800	1090 MHz	800W	128µs, 2%	17dB	62%	50V	Input	PL84A1
IGN1011L60	1030-1090 MHz	60W	48x (32µs On, 18µs Off), 6.4%	19dB	65%	50V	Input	PL32A2
IGN1011L70	1030-1090 MHz	70W	48x (32µs On, 18µs Off), 6.4%	22dB	65%	50V	Input	PL32A2
IGN1011L120	1030-1090 MHz	120W	48x (32µs On, 18µs Off), 6.4%	20dB	60%	50V	Input	PL44C1
IGN1011L1000	1030-1090 MHz	1000W	48x (32µs On, 18µs Off), 6.4%	16dB	60%	50V	Input	PL84A1
IGN1011L1200	1030-1090 MHz	1200W	48x (32µs On, 18µs Off), 6.4%	17dB	75%	50V	Input	PL84A1
IGN1012S30	1025-1150 MHz	30W	32µs, 2%	19dB	55%	50V	Input	PL32A2
IGN1012S40	1025-1150 MHz	40W	32µs, 2%	22dB	65%	50V	Input	PL32A2
IGN1012L40	1025-1150 MHz	40W	48x (32µs On, 18µs Off), 6.4%	21dB	60%	50V	Input	PL32A2
IGN1012S1000	1025-1150 MHz	1000W	32µs, 2%	16dB	50%	50V	Input	PL84A1
IGN0912L45	960-1215 MHz	45W	444x (7µs On, 6µs Off), 22.7%	21dB	57%	50V	Input	PL32A2
IGN0912L125A	960-1215 MHz	125W	444x (7µs On, 6µs Off), 22.7%	18dB	55%	50V	Input & Output	PL44C1
IGN0912L250	960-1215 MHz	250W	444x (7µs On, 6µs Off), 22.7%	16dB	60%	50V	Input & Output	PL44C1
IGN0912L500	960-1215 MHz	500W	444x (7µs On, 6µs Off), 22.7%	15dB	65%	50V	Input & Output	PL95A1
IGN0912CW300	960-1215 MHz	300W	CW	14dB	70%	36V	Input & Output	PL95A1
IGN1214M120	1200-1400 MHz	120W	300µs, 10%	19dB	60%	50V	Input & Output	PL44C1
IGN1214M250	1200-1400 MHz	250W	300µs, 10%	16dB	60%	50V	Input & Output	PL44C1
IGN1214M380C	1210-1400 MHz	380W	150µs, 10%	20dB	54%	50V	Input	PL44C1
IGN1214M500	1200-1400 MHz	500W	300µs, 10%	14dB	60%	50V	Input & Output	PL95A1
IGN1214M650	1200-1400 MHz	650W	300µs, 10%	14dB	63%	60V	Input & Output	PL95A1
IGN1214M650A	1200-1400 MHz	650W	300µs, 10%	13dB	72%	50V	Input & Output	PL95A1
IGN1214S1000	1200-1400 MHz	1000W	5µs, 1.5%	14dB	62%	65V	Input & Output	PL95A1
IGN1214L15	1200-1400 MHz	15W	5ms, 30%	16dB	55%	50V	Input & Output	PL32A2
IGN1214L30	1200-1400 MHz	30W	5ms, 30%	16dB	60%	42V	Input & Output	PL32A2
IGN1214L125	1200-1400 MHz	125W	2ms, 20%	18dB	55%	50V	Input & Output	PL44C1
IGN1214L380	1200-1400 MHz	380W	5ms, 30%	12dB	60%	42V	Input & Output	PL95A1
S-band Radar and S-band ISM								
IGN2856S500	2856 MHz	500W	12µs, 3%	12dB	60%	50V	Input & Output	PL64A1
IGN2429M400	2400-2900 MHz	400W	300µs, 10%	13dB	50%	48V	Input & Output	PL84A1
IGN2729M250C	2700-2900 MHz	250W	300µs, 10%	11dB	59%	50V	Input & Output	PL64A1
IGN2729M400	2700-2900 MHz	400W	300µs, 10%	11dB	58%	50V	Input & Output	PL64A1
IGN2729M500	2700-2900 MHz	500W	300µs, 10%	12dB	60%	50V	Input & Output	PL84A1
IGN2998S500	2998 MHz	500W	8µs, 1%	12dB	55%	50V	Input & Output	PL64A1
IGN2730M65	2700-3000 MHz	65W	300µs, 20%	15dB	58%	32V	Input & Output	PL32A1
IGN2731M5	2700-3100 MHz	5W	300µs, 10%	15dB	48%	40V	Input	PL32A1
IGN2731M80	2700-3100 MHz	80W	100µs, 10%	14dB	50%	40V	Input & Output	PL32A1
IGT2731M130	2700-3100 MHz	130W	300µs, 10%	14dB	55%	50V	50-Ohm	PL44A1
IGN2731M200	2700-3100 MHz	200W	300µs, 10%	14dB	54%	44V	Input & Output	PL64A1
IGT2731L120	2700-3100 MHz	120W	40ms, 50%	13dB	50%	32V	50-Ohm	PM67A1
IGN2731L200	2700-3100 MHz	200W	3ms, 30%	14dB	54%	42V	Input & Output	PL64A1
IGN2732M10	2700-3200 MHz	10W	100µs, 10%	16dB	48%	40V	Input & Output	PL32A2
IGN2932M75	2900-3200 MHz	75W	100µs, 10%	13dB	55%	45V	Input & Output	PL32A1
IGT2735M30	**2700-3500 MHz**	**30W**	**300µs, 10%**	**12dB**	**50%**	**32V**	**50-Ohm**	**PL44A1**
IGN2735M250	**2700-3500 MHz**	**250W**	**300µs, 10%**	**10dB**	**55%**	**32V**	**Input & Output**	**PL84A1**
IGN3135M135	3100-3500 MHz	135W	300µs, 10%	13dB	55%	50V	Input & Output	PL32A1
IGT3135M135	3100-3500 MHz	135W	300µs, 10%	14dB	55%	46V	50-Ohm	PL44A1
IGN3135M250	3100-3500 MHz	250W	300µs, 10%	13dB	50%	50V	Input & Output	PL44C1
IGN3135L12	3100-3500 MHz	12W	3ms, 30%	16dB	50%	46V	Input	PL32A2
IGN3135L115	3100-3500 MHz	115W	3ms, 30%	14dB	51%	46V	Input & Output	PL44C1
C-band Radar								
IGN3842M130	3800-4200 MHz	130W	100µs, 2%	14dB	57%	50V	Input & Output	PL32A1
IGN4450M50	4400-5000 MHz	50W	300µs, 10%	15dB	55%	36V	Input & Output	PL32A2
IGN4450M90	4400-5000 MHz	90W	300µs, 10%	13dB	55%	36V	Input & Output	PL32A1
IGN4450CW50	4400-5000 MHz	50W	CW	12dB	58%	24V	Input & Output	PL32A1
IGN5259M10	5200-5900 MHz	10W	300µs, 10%	13dB	55%	36V	Input & Output	PL32A2
IGN5259M15	5200-5900 MHz	15W	300µs, 10%	15dB	50%	36V	Input & Output	PL32A2
IGN5259M20	5200-5900 MHz	20W	300µs, 10%	12dB	60%	36V	Input & Output	PL32A2
IGT5259M25	5200-5900 MHz	25W	300µs, 10%	13dB	50%	36V	50-Ohm	PL44A1
IGN5259M40	5200-5900 MHz	40W	300µs, 10%	13dB	50%	36V	Input & Output	PL32A2
IGN5259M80	5200-5900 MHz	80W	300µs, 10%	13dB	50%	36V	Input & Output	PL32A1
IGN5259CW50	5200-5900 MHz	50W	CW	13dB	54%	24V	Input & Output	PL32A1

Note on package dimensions: Please confirm lead trim/dimensions with Integra. **Note: Rows in Bold denote new products currently in engineering development**

Featured Pallets and Modules

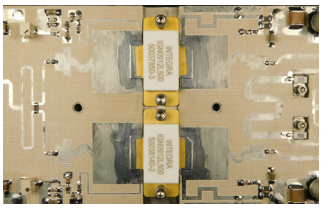
Part Number	Frequency Band	Output Power (minimum)	Pulse width & Duty factor	Gain (typical)	Efficiency (typical)	Voltage	Size

L-band Avionics and L-band Radar

IGNP1011M1600	1030-1090 MHz	1600W	100µs, 2%	15dB	55%	50V	7.4 x 3.5 x 0.27 inch
IGNP0912L1KW	960-1215 MHz	1000W	444x (7µs On, 6µs Off), 22.7%	14dB	55%	50V	6.6 x 3.8 x 0.27 inch
IGNP1214M1KW-GPS	1200-1400 MHz	1000W	300µs, 10%	13dB	60%	50V	7.4 x 3.6 x 0.27 inch
IGNP1214M1300-GPS	**1200-1400 MHz**	**1300W**	**300µs, 10%**	**12dB**	**55%**	**50V**	**7.4 x 3.7 x 0.27 inch**
ILP1214EL200	1200-1400 MHz	200W	16ms, 50%	22dB	45%	30V	5.91 x 2.95 x 0.21 inch

6.6 in.

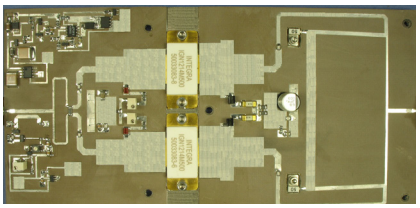
3.8 in.



IGNP0912L1KW

7.4 in.

3.6 in.



IGNP1214M1KW-GPS

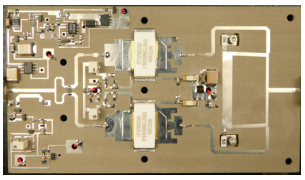
IBPM1030S1K	**1030 MHz**	**1000W**	**10µs, 1%**	**39dB**	**41%**	**50V**	**6.3 x 3.0 x 0.21 inch**
IBP1011L900	1030 MHz	900W	48x (32µs On, 18µs Off), 6.4%	10dB	50%	48V	3.9 x 2.0 x 0.21 inch
IBP1214M700	1200-1400 MHz	700W	200µs, 10%	9dB	51%	42V	3.54 x 1.77 x 0.21 inch

S-band Radar

IGNP2729M800	2700-2900 MHz	800W	300us, 10%	11dB	58%	50V	2.8 x 2.7 x 0.22 inch
IGNP2729M1KW-GPS	2700-2900 MHz	1000W	300µs, 10%	11dB	51%	50V	5.3 x 3.0 x 0.27 inch
IGNP2730M380	2700-3000 MHz	380W	300µs, 10%	14dB	60%	50V	2.0 x 0.9 x 0.23 inch
IGNP2731M400-GPS	**2700-3100 MHz**	**400W**	**300µs, 10%**	**14dB**	**58%**	**48V**	**5.0 x 2.5 x 0.19 inch**
IGNP2735M500	**2700-3500 MHz**	**500W**	**300µs, 10%**	**10dB**	**54%**	**32V**	**3.9 x 3.4 x 0.27 inch**
IGNP3135M500	3100-3500 MHz	500W	300µs, 10%	13dB	50%	50V	3.2 x 2.9 x 0.27 inch

5.3 in.

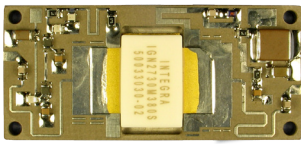
3.0 in.



IGNP2729M1KW-GPS

2.0 in.

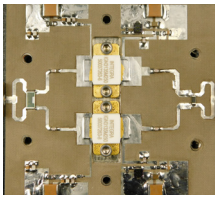
0.9 in.



IGNP2730M380

3.2 in.

2.9 in.



IGNP3135M500

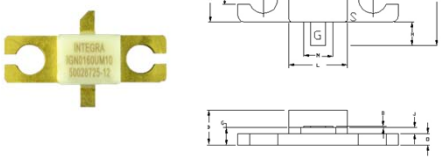
ILP2731M260	2700-3100 MHz	260W	300µs, 10%	11dB	35%	32V	3.40 x 2.15 x 0.22 inch
ILMP2731M260	2700-3100 MHz	260W	300µs, 10%	23dB	35%	32V	4.70 x 2.15 x 0.22 inch
ILP3135M240	3100-3500 MHz	240W	300µs, 10%	10dB	37%	32V	4.20 x 2.28 x 0.21 inch
ILMP3135M240	3100-3500 MHz	240W	300µs, 10%	21dB	32%	32V	5.40 x 2.28 x 0.22 inch
IBP2226M300	2250-2550 MHz	300W	200µs, 10%	8dB	56%	34V	3.54 x 2.36 x 0.21 inch
IBP2729M300	2700-2900 MHz	300W	100µs, 10%	8dB	38%	36V	2.00 x 1.41 x 0.15 inch
IBP2729MH300	2700-2900 MHz	300W	100µs, 10%	9dB	45%	36V	2.00 x 1.41 x 0.21 inch
IBP2731M200	2700-3100 MHz	200W	200µs, 10%	9dB	45%	36V	2.00 x 1.41 x 0.15 inch
IBP2731MH200	2700-3100 MHz	200W	200µs, 10%	8dB	40%	36V	2.00 x 1.41 x 0.21 inch
IBP2931MH270	2900-3100 MHz	270W	100µs, 10%	8dB	40%	36V	2.00 x 1.41 x 0.15 inch
IBP2931M300	2900-3100 MHz	300W	40µs, 5%	9dB	40%	42V	2.00 x 1.41 x 0.15 inch
IBP2934M190	**2900-3400 MHz**	**190W**	**100µs, 10%**	**8dB**	**45%**	**36V**	**2.00 x 1.41 x 0.15 inch**
IBP3134M25	**3100-3400 MHz**	**25W**	**300µs, 10%**	**11dB**	**45%**	**36V**	**1.00 x 0.75 x 0.15 inch**
IBP3134M220	3100-3400 MHz	220W	200µs, 10%	9dB	41%	36V	2.00 x 1.00 x 0.21 inch
IBP3135M150	3100-3500 MHz	150W	100µs, 10%	9dB	48%	36V	1.75 x 0.80 x 0.13 inch
IBP31315MH200	3100-3500 MHz	200W	100µs, 10%	9dB	41%	36V	2.00 x 1.41 x 0.21 inch

C-band Radar

IGNP4450M100	4400-5000 MHz	100W	300µs, 10%	14dB	45%	36V	2.6 x 2.2 x 0.22 inch
IGNP4450M180	4400-5000 MHz	180W	300µs, 10%	13dB	55%	36V	2.6 x 2.2 x 0.22 inch
IGNP5259M150	5200-5900 MHz	150W	300µs, 10%	13dB	45%	36V	2.6 x 2.2 x 0.22 inch

Note: IBP, IBPM = bipolar pallets. ILP, ILMP = LDMOS pallets, IGNP = GaN/SiC pallets **Note: Rows in Bold denote new products currently in engineering development**

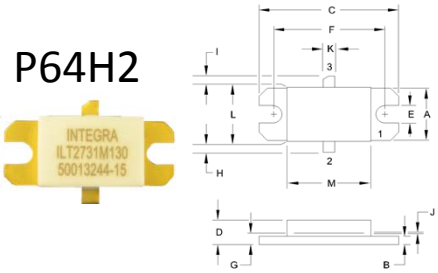
PL21A1



DIM	INCHES MIN	INCHES MAX	MILLIMETERS MIN	MILLIMETERS MAX
A	0.155	0.165	3.94	4.19
B	0.003	0.006	0.07	0.15
C	0.545	0.555	13.84	14.09
D	0.112	0.146	2.84	3.70
E	0.027	0.037	0.68	0.94
F	0.370	0.380	9.40	9.65
G	0.057	0.067	1.45	1.70
H	0.060	0.100	1.52	2.54
I	0.060	0.100	1.52	2.54
J	0.015	0.025	0.38	0.63
K	0.045	0.055	1.14	1.40
L	0.195	0.205	4.95	5.21
M	0.165	0.175	4.19	4.44
N	0.315	0.325	8.00	8.25
O	0.035	0.045	0.89	1.14

PIN SCHEDULE	
D	DRAIN
S	SOURCE
G	GATE

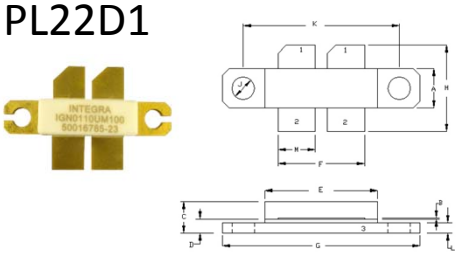
P64H2



DIM	INCHES MIN	INCHES MAX	MILLIMETERS MIN	MILLIMETERS MAX
A	0.380	0.390	9.65	9.91
B	0.056	0.065	1.40	1.65
C	0.905	1.005	22.99	25.53
D	0.178	0.188	4.52	4.78
E	0.125	0.135	3.18	3.43
F	0.795	0.805	20.19	20.45
G	0.082	0.092	2.08	2.34
H	0.095	0.105	2.41	2.67
I	0.095	0.105	2.41	2.67
J	0.002	0.004	0.05	0.10
K	0.095	0.105	2.41	2.67
L	0.395	0.405	2.41	2.67
M	0.595	0.605	15.11	15.37

PIN SCHEDULE	
1	BASE
2	EMITTER
3	COLLECTOR

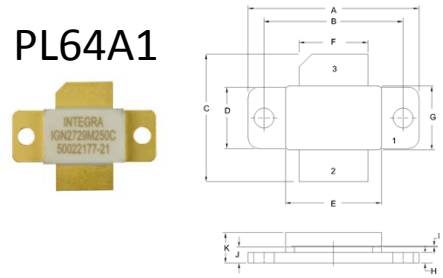
PL22D1



DIM	INCHES MIN	INCHES MAX	MILLIMETERS MIN	MILLIMETERS MAX
A	0.225	0.235	5.72	5.97
B	0.003	0.005	0.08	0.13
C	0.177	0.187	4.50	4.75
D	0.077	0.087	1.96	2.21
E	0.645	0.655	16.38	16.64
F	0.495	0.505	12.57	12.83
G	1.135	1.145	28.83	29.08
H	0.490	0.510	12.44	12.95
J	0.128	0.132	3.25	3.35
K	0.895	0.905	22.73	22.99
L	0.055	0.065	1.40	1.65
M	0.210	0.220	5.33	5.60

PIN SCHEDULE	
1	DRAIN
2	GATE
3	SOURCE

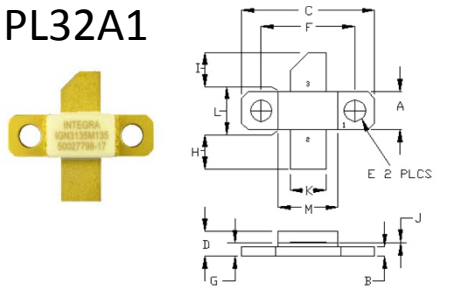
PL64A1



DIM	INCHES MIN	INCHES MAX	MILLIMETERS MIN	MILLIMETERS MAX
A	1.065	1.075	27.05	27.30
B	0.865	0.875	21.97	22.22
C	0.794	0.804	20.17	20.42
D	0.380	0.390	9.65	9.90
E	0.595	0.605	15.11	15.37
F	0.425	0.435	10.79	11.05
G	0.395	0.405	10.03	10.29
H	0.060	0.070	1.52	1.78
I	0.004	0.006	0.10	0.15
J	0.096	0.106	2.44	2.69
K	0.184	0.196	4.67	4.98

PIN SCHEDULE	
1	BASE
2	EMITTER
3	COLLECTOR

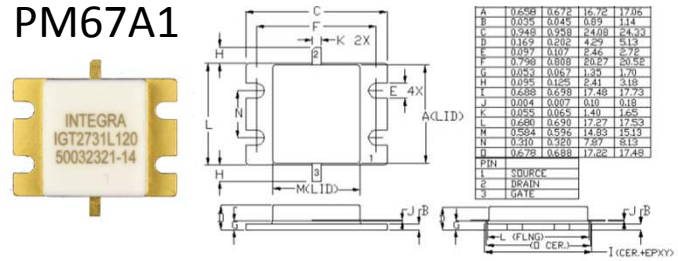
PL32A1



DIM	INCHES MIN	INCHES MAX	MILLIMETERS MIN	MILLIMETERS MAX
A	0.225	0.235	5.71	5.96
B	0.055	0.065	1.40	1.65
C	0.795	0.805	20.19	20.44
--	--	--	--	--
D	0.140	0.160	3.55	4.06
E	0.125	0.135	3.18	3.43
F	0.557	0.567	14.14	14.40
G	0.077	0.087	1.95	2.20
H	0.230	0.240	5.84	6.09
I	0.230	0.240	5.84	6.09
J	0.004	0.006	0.10	0.15
K	0.210	0.220	5.33	5.59
L	0.225	0.235	5.71	5.96
M	0.355	0.365	9.01	9.27

PIN SCHEDULE	
1	SOURCE
2	GATE
3	DRAIN

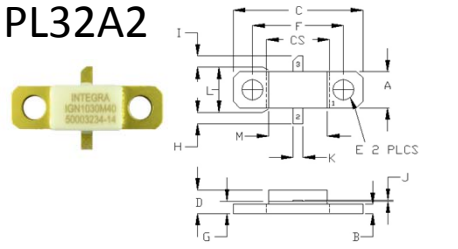
PM67A1



A	0.658	0.672	16.72	17.06
B	0.035	0.045	0.89	1.14
C	0.948	0.958	24.08	24.33
D	0.169	0.202	4.29	5.13
E	0.097	0.107	2.46	2.72
F	0.798	0.808	20.27	20.52
G	0.053	0.067	1.35	1.70
H	0.095	0.125	2.41	3.18
I	0.688	0.698	17.48	17.73
J	0.004	0.007	0.10	0.18
K	0.055	0.065	1.40	1.65
L	0.680	0.690	17.27	17.53
M	0.584	0.596	14.83	15.13
N	0.310	0.320	7.87	8.13
O	0.678	0.688	17.22	17.48

PIN	
1	SOURCE
2	DRAIN
3	GATE

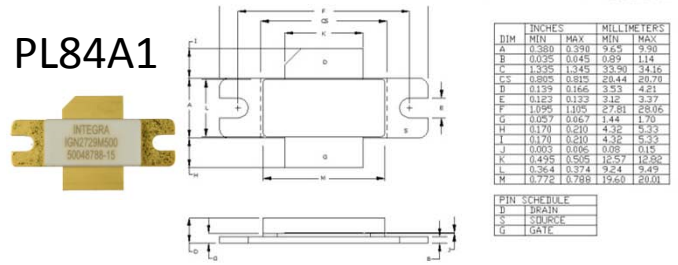
PL32A2



DIM	INCHES MIN	INCHES MAX	MILLIMETERS MIN	MILLIMETERS MAX
A	0.225	0.235	5.71	5.96
B	0.055	0.065	1.40	1.65
C	0.795	0.805	20.19	20.44
CS	0.385	0.395	9.78	10.03
D	0.140	0.160	3.55	4.06
E	0.125	0.135	3.18	3.43
F	0.557	0.567	14.14	14.40
G	0.077	0.087	1.95	2.20
H	0.093	0.107	2.36	2.72
I	0.093	0.107	2.36	2.72
J	0.004	0.006	0.10	0.15
K	0.055	0.065	1.40	1.65
L	0.225	0.235	5.71	5.96
M	0.355	0.365	9.01	9.27

PIN SCHEDULE	
1	SOURCE
2	GATE
3	DRAIN

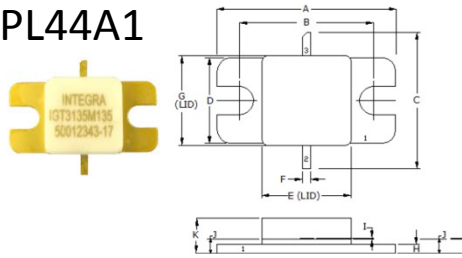
PL84A1



DIM	INCHES MIN	INCHES MAX	MILLIMETERS MIN	MILLIMETERS MAX
A	0.380	0.390	9.65	9.90
B	0.035	0.045	0.89	1.14
C	1.335	1.345	33.90	34.16
CS	0.805	0.815	20.44	20.70
D	0.139	0.166	3.53	4.21
E	0.123	0.133	3.12	3.37
F	1.095	1.105	27.81	28.06
G	0.057	0.067	1.44	1.70
H	0.170	0.220	4.32	5.33
I	0.170	0.210	4.32	5.33
J	0.003	0.006	0.08	0.15
K	0.495	0.505	12.57	12.82
L	0.364	0.374	9.24	9.49
M	0.772	0.788	19.60	20.01

PIN SCHEDULE	
D	DRAIN
S	SOURCE
G	GATE

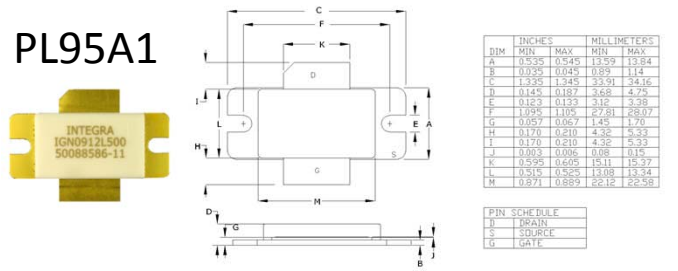
PL44A1



DIM	INCHES MIN	INCHES MAX	MILLIMETERS MIN	MILLIMETERS MAX
A	0.795	0.805	20.19	20.45
B	0.595	0.605	15.11	15.37
C	0.584	0.644	14.83	16.36
D	0.380	0.390	9.65	9.91
E	0.393	0.405	9.98	10.29
F	0.034	0.044	0.86	1.12
G	0.393	0.405	9.98	10.29
H	0.035	0.045	0.89	1.14
I	0.004	0.006	0.10	0.15
J	0.057	0.067	1.45	1.70
K	0.131	0.181	3.33	4.60
L	0.395	0.405	10.03	10.29
M	0.405	0.415	10.29	10.54

PIN SCHEDULE	
1	SOURCE
2	GATE
3	DRAIN

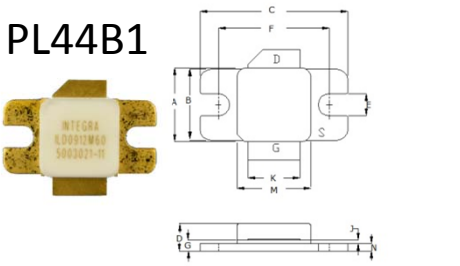
PL95A1



DIM	INCHES MIN	INCHES MAX	MILLIMETERS MIN	MILLIMETERS MAX
A	0.535	0.545	13.59	13.84
B	0.035	0.045	0.89	1.14
C	1.335	1.345	33.91	34.16
D	0.145	0.187	3.68	4.75
E	0.123	0.133	3.12	3.38
F	1.095	1.105	27.81	28.07
G	0.057	0.067	1.45	1.70
H	0.170	0.210	4.32	5.33
I	0.170	0.210	4.32	5.33
J	0.003	0.006	0.08	0.15
K	0.595	0.605	15.11	15.37
L	0.515	0.525	13.08	13.34
M	0.871	0.889	22.12	22.58

PIN SCHEDULE	
D	DRAIN
S	SOURCE
G	GATE

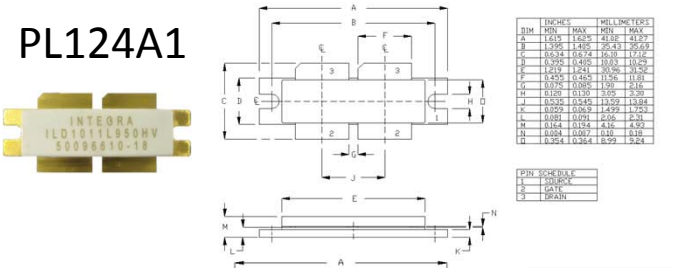
PL44B1



DIM	INCHES MIN	INCHES MAX	MILLIMETERS MIN	MILLIMETERS MAX
A	0.395	0.405	10.03	10.29
B	0.380	0.390	9.65	9.91
C	0.795	0.805	20.19	20.45
D	0.128	0.156	3.25	3.96
E	0.115	0.125	2.92	3.17
F	0.595	0.605	15.11	15.37
G	0.057	0.067	1.45	1.70
H	0.080	0.120	2.03	3.04
I	0.080	0.120	2.03	3.04
J	0.015	0.025	0.38	0.63
K	0.275	0.285	6.98	7.24
M	0.395	0.405	10.03	10.29
N	0.035	0.045	0.89	1.14

PIN SCHEDULE	
D	DRAIN
S	SOURCE
G	GATE

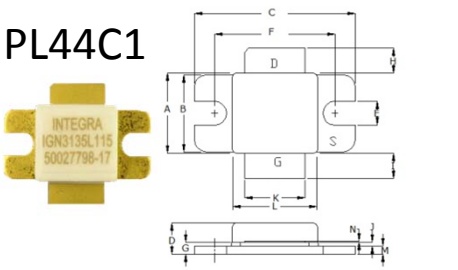
PL124A1



DIM	INCHES MIN	INCHES MAX	MILLIMETERS MIN	MILLIMETERS MAX
A	1.615	1.625	41.02	41.27
B	1.395	1.405	35.43	35.69
C	0.634	0.674	16.10	17.12
D	0.395	0.405	10.03	10.29
E	1.219	1.241	30.96	31.52
F	0.355	0.365	9.02	9.27
G	0.075	0.085	1.90	2.16
H	0.120	0.130	3.05	3.30
J	0.435	0.445	11.05	11.30
K	0.559	0.569	14.99	17.53
L	0.081	0.091	2.06	2.31
M	0.164	0.194	4.16	4.93
N	0.004	0.007	0.10	0.18
O	0.354	0.364	8.99	9.24

PIN SCHEDULE	
1	SOURCE
2	GATE
3	DRAIN

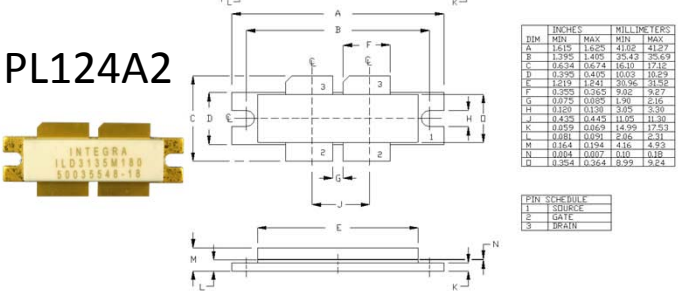
PL44C1



DIM	INCHES MIN	INCHES MAX	MILLIMETERS MIN	MILLIMETERS MAX
A	0.395	0.405	10.03	10.29
B	0.380	0.390	9.65	9.91
C	0.795	0.805	20.19	20.45
D	0.143	0.177	3.63	4.49
E	0.115	0.125	2.92	3.17
F	0.595	0.605	15.11	15.37
G	0.053	0.065	1.35	1.65
H	0.110	0.140	0.28	0.36
I	0.110	0.140	0.28	0.36
J	0.018	0.022	0.046	0.056
K	0.295	0.305	7.49	7.74
L	0.425	0.435	10.80	11.05
M	0.035	0.045	0.89	1.14
N	0.004	0.007	0.10	0.17

PIN SCHEDULE	
D	DRAIN
S	SOURCE
G	GATE

PL124A2



DIM	INCHES MIN	INCHES MAX	MILLIMETERS MIN	MILLIMETERS MAX
A	1.615	1.625	41.02	41.27
B	1.395	1.405	35.43	35.69
C	0.634	0.674	16.10	17.12
D	0.395	0.405	10.03	10.29
E	1.219	1.241	30.96	31.52
F	0.355	0.365	9.02	9.27
G	0.075	0.085	1.90	2.16
H	0.120	0.130	3.05	3.30
J	0.435	0.445	11.05	11.30
K	0.559	0.569	14.99	17.53
L	0.081	0.091	2.06	2.31
M	0.164	0.194	4.16	4.93
N	0.004	0.007	0.10	0.18
O	0.354	0.364	8.99	9.24

PIN SCHEDULE	
1	SOURCE
2	GATE
3	DRAIN

Si LDMOS Transistor Products

Part Number	Frequency Band	Output Power (minimum)	Pulse width & Duty factor	Gain (typical)	Efficiency (typical)	Voltage	Matching	Package
UHF and Broadband Communication								
ILD0506EL350	**480-610 MHz**	**350W**	**15ms, 33%**	**14dB**	**53%**	**45V**	**Input**	**PL124A1**
L-band Avionics and L-band Radar								
ILD1011M1000HVE	1030 MHz	1000W	50µs, 2%	18dB	55%	50V	Input	PL124A1
ILD1011L950HV	1030 MHz	950W	48x (32µs On, 18µs Off), 6.4%	16dB	55%	50V	Input	PL124A1
ILD1011M160HV	1030/1090 MHz	160W	50µs, 2%	17dB	53%	50V	Input	PL32A1
ILD1011M280HV	1030/1090 MHz	280W	50µs, 2%	16dB	51%	50V	Input	PL84A1
ILD1011M15HV	1030-1090 MHz	15W	50µs, 2%	17dB	46%	50V	Output	PL32A1
ILD1011M275HV	1030-1090 MHz	275W	50µs, 2%	15dB	53%	50V	Input & Output	PL84A1
ILD1011M550HV	1030-1090 MHz	550W	50µs, 2%	17dB	49%	50V	Input & Output	PL84A1
ILD1011L20HV	1030-1090 MHz	20W	48x (32µs On, 18µs Off), 6.4%	15dB	43%	50V	None	PL32A1
ILD1011L110HV	1030-1090 MHz	110W	48x (32µs On, 18µs Off), 6.4%	15dB	50%	50V	Input	PL32A1
ILD1011L200HV	1030-1090 MHz	200W	48x (32µs On, 18µs Off), 6.4%	17dB	55%	50V	Input	PL64A1
ILD1012S500HV	1025-1150 MHz	500W	10µs, 1%	16dB	49%	50V	Input & Output	PL84A1
ILD0912M15HV	960-1215 MHz	15W	10µs, 10%	14dB	44%	50V	None	PL32A1
ILD0912M60	960-1215 MHz	60W	10µs, 10%	17dB	48%	30V	Input & Output	PL44B1
ILD0912M150HV	960-1215 MHz	150W	10µs, 10%	13dB	55%	50V	Input & Output	PL84A1
ILD0912M400HV	960-1215 MHz	400W	10µs, 10%	9dB	46%	50V	Input & Output	PL95A1
ILD1214M10	1200-1400 MHz	10W	200µs, 10%	13dB	48%	30V	Output	PL32A1
ILD1214M60	1200-1400 MHz	60W	300µs, 10%	14dB	48%	30V	Input & Output	PL44B1
ILD1214L250	1200-1400 MHz	250W	1ms, 10%	13dB	60%	30V	Input & Output	PL124A1
ILD1214EL40	1200-1400 MHz	40W	16ms, 50%	14dB	42%	30V	Input	PL32A1
ILD1214EL200	1200-1400 MHz	200W	16ms, 50%	12dB	42%	30V	Input & Output	PL124A1
S-band Radar								
ILT2731M15	2700-3100 MHz	15W	300µs, 10%	12dB	50%	32V	50-Ohm	PL32A2
ILD2731M30	2700-3100 MHz	30W	100µs, 10%	13dB	46%	28V	Input & Output	PL32A1
ILT2731M30	2700-3100 MHz	30W	300µs, 10%	12dB	50%	32V	50-Ohm	PL32A2
ILD2731M60	2700-3100 MHz	60W	300µs, 10%	11dB	43%	32V	Input & Output	PL32A1
ILT2731M130	2700-3100 MHz	130W	300µs, 10%	12dB	43%	32V	50-Ohm	P64H2
ILD2731M140	2700-3100 MHz	140W	300µs, 10%	13dB	45%	32V	Input & Output	PL64A1
ILD2735M120	2700-3500 MHz	120W	300µs, 10%	10dB	33%	32V	Input & Output	PL124A1
ILD2933M130	2900-3300 MHz	130W	300µs, 10%	11dB	45%	32V	Input & Output	PL84A1
ILT3035M15	3000-3500 MHz	15W	300µs, 10%	12dB	45%	32V	50-Ohm	PL32A2
ILT3035M30	3000-3500 MHz	30W	300µs, 10%	12dB	45%	32V	50-Ohm	PL32A2
ILD3135M30	3100-3500 MHz	30W	300µs, 10%	10dB	40%	32V	Input & Output	PL32A1
ILD3135M120	3100-3500 MHz	120W	300µs, 10%	10dB	41%	32V	Input & Output	PL84A1
ILD3135M180	3100-3500 MHz	180W	300µs, 10%	12dB	37%	32V	Input & Output	PL124A2
ILD3135EL20	3100-3500 MHz	20W	16ms, 50%	10dB	35%	28V	Input & Output	PL32A1

Note on package dimensions: Please confirm lead trim/dimensions with Integra. **Note: Rows in Bold denote new products currently in engineering development**

Si VDMOS Transistor Products

Part Number	Frequency Band	Output Power (minimum)	Pulse width & Duty factor	Gain (typical)	Efficiency (typical)	Voltage	Matching	Package
VHF/UHF and Broadband Communication								
IDM165L650	125-167 MHz	650W	1ms, 20%	9dB	62%	34V	None	P44I1
IDM175CW300	1-200 MHz	300W	CW	15dB	57%	50V	None	P44I5
IDM265L650	190-265 MHz	650W	1ms, 20%	8dB	58%	34V	None	P44C5
IDM500CW200	1-500 MHz	200W	CW	10dB	63%	28V	None	P44I1
IDM500CW300	1-500 MHz	300W	CW	9dB	65%	28V	None	P44I1
IDM30512CW50	30-512 MHz	50W	CW	10dB	50%	28V	None	P44I1
IDM30512CW100	30-512 MHz	100W	CW	9dB	65%	28V	None	P44I1

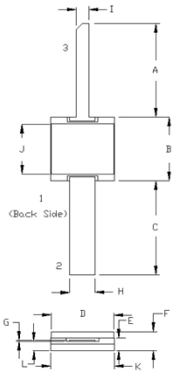
Note on package dimensions: Please confirm lead trim/dimensions with Integra.

Si Bipolar Transistor Products

Part Number	Frequency Band	Output Power (minimum)	Pulse width & Duty factor	Gain (typical)	Efficiency (typical)	Voltage	Matching	Package
UHF and Broadband Communication								
IB450S300	450 MHz	300W	30µs, 10%	11dB	63%	40V	Input	P44I1
IB450S500	450 MHz	500W	30µs, 10%	10dB	68%	40V	Input	P64A2
IB0607S10	653-687 MHz	10W	20µs, 2%	10dB	49%	50V	None	P32A5
IB0607S100	653-687 MHz	100W	20µs, 2%	13dB	62%	50V	Input	P32A5
IB0607S1000	653-687 MHz	1000W	20µs, 2%	9dB	55%	50V	Input	P64A6
L-band Avionics and L-band Radar								
IB0810M12	870-990 MHz	12W	300µs, 15%	8dB	53%	36V	None	P44C3
IB0810M50	870-990 MHz	50W	300µs, 15%	8dB	52%	36V	Input	P44C3
IB0810M100	870-990 MHz	100W	300µs, 15%	10dB	69%	36V	Input	P44C3
IB0810M210	870-990 MHz	210W	300µs, 15%	8dB	59%	36V	Input	P44C3
IB1011M10	1030 MHz	10W	128x (0.5µs On, 0.5µs Off), 1%	10dB	52%	50V	None	P32A5
IB1011M20	1030 MHz	20W	128x (0.5µs On, 0.5µs Off), 1%	14dB	61%	50V	None	P32A5
IB1011M70	1030 MHz	70W	128x (0.5µs On, 0.5µs Off), 1%	9dB	65%	50V	Input	P32A5
IB1011M140	1030 MHz	140W	128x (0.5µs On, 0.5µs Off), 1%	12dB	56%	50V	Input	P32A5
IB1011M190	1030 MHz	190W	128x (0.5µs On, 0.5µs Off), 1%	12dB	75%	50V	Input	P32A5
IB1011M250	1030 MHz	250W	128x (0.5µs On, 0.5µs Off), 1%	8dB	62%	50V	Input	P32A5
IB1011M350	1030 MHz	350W	128x (0.5µs On, 0.5µs Off), 1%	11dB	72%	50V	Input	P32A5
IB1011M660	1030 MHz	660W	128x (0.5µs On, 0.5µs Off), 1%	11dB	57%	50V	Input	P64A2
IB1011M800	1030 MHz	800W	128x (0.5µs On, 0.5µs Off), 1%	9dB	52%	50V	Input	P64A2
IB1011M1000	1030 MHz	1000W	128x (0.5µs On, 0.5µs Off), 1%	9dB	58%	50V	Input	P64A6
IB1011L15	1030 MHz	15W	48x (32µs On, 18µs Off), 6.4%	15dB	67%	48V	None	P32A5
IB1011L40	1030 MHz	40W	48x (32µs On, 18µs Off), 6.4%	10dB	57%	48V	Input	P32A5
IB1011L110	1030 MHz	110W	48x (32µs On, 18µs Off), 6.4%	11dB	65%	48V	Input	P32A5
IB1011L220	1030 MHz	220W	48x (32µs On, 18µs Off), 6.4%	9dB	56%	48V	None	P32A5
IB1011L470	1030 MHz	470W	48x (32µs On, 18µs Off), 6.4%	10dB	57%	48V	Input	P64A2
IB1011S70	1030/1090 MHz	70W	10µs, 1%	10dB	70%	50V	Input	P32A5
IB1011S190	1030/1090 MHz	190W	10µs, 1%	12dB	70%	60V	Input	P32A5
IB1011S250	1030/1090 MHz	250W	10µs, 1%	10dB	61%	50V	Input	P32A5
IB1011S350	1030/1090 MHz	350W	10µs, 1%	12dB	59%	50V	Input	P32A5
IB1011S1000	1030/1090 MHz	1000W	10µs, 1%	10dB	57%	50V	Input	P64A6
IB1011S1500	1030/1090 MHz	1500W	10µs, 1%	10dB	50%	60V	Input	P64A6
IB1011M1100	1030-1090 MHz	1100W	32µs, 2%	9dB	44%	60V	Input & Output	P64A6
IB1012S10	1025-1150 MHz	10W	10µs, 1%	11dB	43%	50V	Input & Output	P32C1
IB1012S20	1025-1150 MHz	20W	10µs, 1%	10dB	51%	50V	Input & Output	P32A5
IB1012S50	1025-1150 MHz	50W	10µs, 1%	11dB	49%	50V	Input	P32A5
IB1012S150	1025-1150 MHz	150W	10µs, 1%	10dB	53%	50V	Input & Output	P44C14
IB1012S500	1025-1150 MHz	500W	10µs, 1%	10dB	54%	50V	Input & Output	P54A5
IB1012S800	1025-1150 MHz	800W	10µs, 1%	10dB	50%	50V	Input & Output	P64A6
IB1012S1100	1025-1150 MHz	1100W	10µs, 1%	10dB	50%	60V	Input & Output	P64A6
IB0912M70	960-1215 MHz	70W	10µs, 10%	11dB	64%	50V	Input & Output	P32C1
IB0912M210	960-1215 MHz	210W	10µs, 10%	12dB	53%	50V	Input & Output	P44C7
IB0912M350	960-1215 MHz	350W	10µs, 10%	11dB	57%	50V	Input & Output	P54A5
IB0912M500	960-1215 MHz	500W	10µs, 10%	8dB	56%	50V	Input & Output	P64A2
IB0912M600	960-1215 MHz	600W	10µs, 10%	9dB	53%	50V	Input & Output	P64A28
IB0912L30	960-1215 MHz	30W	450µs, 15%	11dB	61%	36V	Input	P22A1
IB0912L70	960-1215 MHz	70W	444x (7µs On, 6µs Off), 22.7%	12dB	58%	44V	Input & Output	P22A1
IB0912L200	960-1215 MHz	200W	444x (7µs On, 6µs Off), 22.7%	10dB	58%	44V	Input & Output	P54A5
IB1214M6	1200-1400 MHz	6W	100µs, 10%	9dB	47%	28V	Input	P32C1
IB1214M32	1200-1400 MHz	32W	100µs, 10%	11dB	54%	40V	Input	P32A5
IB1214M55	1200-1400 MHz	55W	100µs, 10%	9dB	47%	40V	Input	P32A5
IB1214M130	1200-1400 MHz	130W	300µs, 10%	9dB	54%	50V	Input & Output	P32A5
IB1214M150	1200-1400 MHz	150W	100µs, 10%	8dB	50%	40V	Input & Output	P32A5
IB1214M375	1200-1400 MHz	375W	300µs, 10%	9dB	60%	42V	Input & Output	P64A28
IB1416S650	1450-1550 MHz	650W	50x (0.5µs On, 1.5µs Off), 1%	8dB	46%	50V	Input & Output	P64A24
S-band Radar and S-band ISM								
IB2226MH15	2250-2550 MHz	15W	200µs, 10%	10dB	41%	36V	Input & Output	P44A3
IB2226M80	2250-2550 MHz	80W	200µs, 10%	8dB	48%	36V	Input & Output	P32A5
IB2226MH110	2250-2550 MHz	110W	200µs, 10%	9dB	42%	36V	Input & Output	P44C4
IB2226M160	2250-2550 MHz	160W	200µs, 10%	9dB	54%	38V	Input & Output	P32A5
IB2226MH160	2250-2550 MHz	160W	200µs, 10%	9dB	46%	34V	Input & Output	P44C4
IB2729M5	2700-2900 MHz	5W	100µs, 10%	8dB	42%	32V	Input & Output	P32C3
IB2729M25	2700-2900 MHz	25W	100µs, 10%	9dB	45%	36V	Input & Output	P32C1
IB2729M90	2700-2900 MHz	90W	100µs, 10%	10dB	51%	36V	Input & Output	P32A5
IB2729M170	2700-2900 MHz	170W	100µs, 10%	10dB	50%	36V	Input & Output	P32A5
IB2731MH25	2700-3100 MHz	25W	200µs, 10%	10dB	43%	36V	Input & Output	P44L1
IB2931MH55	2900-3100 MHz	55W	100µs, 10%	9dB	49%	36V	Input & Output	P44C3
IB2731M110	2700-3100 MHz	110W	200µs, 10%	9dB	50%	36V	Input & Output	P32A5
IB2731MH110	2700-3100 MHz	110W	200µs, 10%	9dB	45%	36V	Input & Output	P44C4
IB2931MH155	2900-3100 MHz	155W	100µs, 10%	9dB	42%	36V	Input & Output	P44C4
IB2934M100	2900-3400 MHz	100W	100µs, 10%	8dB	40%	36V	Input & Output	P32A5
IB3134M15	3100-3400 MHz	15W	300µs, 10%	8dB	45%	36V	Input & Output	P32C3
IB3134M25	3100-3400 MHz	25W	300µs, 10%	10dB	45%	36V	Input & Output	P32C1
IB3134M70	3100-3400 MHz	70W	300µs, 10%	8dB	50%	36V	Input & Output	P32A5
IB3134M100	3100-3400 MHz	100W	300µs, 10%	10dB	42%	36V	Input & Output	P32A5
IB3135MH5	3100-3500 MHz	5W	100µs, 10%	8dB	30%	36V	Input & Output	P44A3
IB3135MH20	3100-3500 MHz	20W	100µs, 10%	8dB	35%	36V	Input & Output	P44A3
IB3135MH45	3100-3500 MHz	45W	100µs, 10%	9dB	42%	36V	Input & Output	P44C3
IB3135MH65	3100-3500 MHz	65W	100µs, 10%	8dB	49%	36V	Input & Output	P44C4
IB3135MH75	3100-3500 MHz	75W	100µs, 10%	9dB	49%	36V	Input & Output	P44C4
IB3135MH100	3100-3500 MHz	100W	100µs, 10%	9dB	45%	36V	Input & Output	P44C4
IB2856S30	2856 MHz	30W	12µs, 3%	10dB	50%	40V	Input & Output	P32A5
IB2856S65	2856 MHz	65W	12µs, 3%	11dB	53%	40V	Input & Output	P32A5
IB2856S250	2856 MHz	250W	12µs, 3%	11dB	52%	40V	Input & Output	P32A5
IB3000S60	3000 MHz	60W	12µs, 1%	12dB	52%	40V	Input & Output	P32A5
IB3000S200	3000 MHz	200W	12µs, 1%	9dB	48%	40V	Input & Output	P32A5

Note on package dimensions: Please confirm lead trim/dimensions with Integra.

P22A1

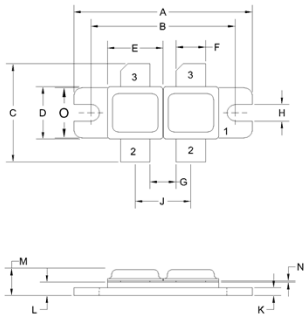


DIM	INCHES MIN	INCHES MAX	MILLIMETERS MIN	MILLIMETERS MAX
A	0.100	0.250	2.54	6.35
B	0.243	0.257	6.17	6.53
C	0.100	0.260	2.54	6.60
D	0.193	0.240	4.90	6.10
E	0.060	0.080	1.52	2.03
F	0.080	0.100	2.03	2.54
G	0.002	0.006	0.05	0.15
H	0.093	0.107	2.36	2.72
I	0.047	0.057	1.19	1.45
J	0.153	0.167	3.89	4.24
K	0.243	0.257	6.17	6.53
L	0.040	0.050	1.02	1.27

PIN SCHEDULE	
1	BASE
2	EMITTER
3	COLLECTOR

NOTES:
DIMENSIONS E, F, L DO NOT INCLUDE BACKSIDE SOLDER

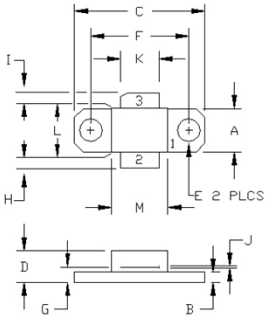
P44C5



DIM	INCHES MIN	INCHES MAX	MILLIMETERS MIN	MILLIMETERS MAX
A	1.330	1.350	33.80	34.30
B	1.095	1.105	27.81	28.07
C	0.640	0.660	16.26	16.76
D	0.395	0.405	10.03	10.29
E	0.419	0.429	10.64	10.90
F	0.220	0.230	5.59	5.84
G	0.194	0.204	4.93	5.18
H	0.123	0.133	3.12	3.38
J	0.419	0.429	10.64	10.90
K	0.062	0.072	1.59	1.83
L	0.119	0.139	3.03	3.53
M	0.193	0.225	4.90	5.72
N	0.003	0.006	0.08	0.15
O	0.380	0.390	9.65	9.90

PIN SCHEDULE	
1	SOURCE
2	GATE
3	DRAIN

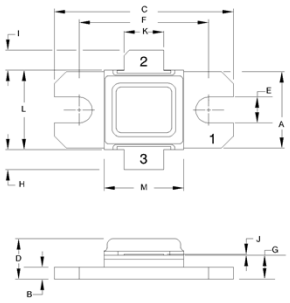
P32A5



DIM	INCHES MIN	INCHES MAX	MILLIMETERS MIN	MILLIMETERS MAX
A	0.243	0.253	6.17	6.43
B	0.055	0.065	1.40	1.65
C	0.739	0.749	18.77	19.02
D	0.178	0.188	4.52	4.78
E	0.125	0.135	3.18	3.43
F	0.555	0.565	14.10	14.35
G	0.082	0.092	2.08	2.34
H	0.075	0.105	2.51	2.77
I	0.075	0.105	2.51	2.77
J	0.004	0.006	0.10	0.15
K	0.215	0.225	5.46	5.72
L	0.245	0.255	6.22	6.48
M	0.315	0.325	8.00	8.26

PIN SCHEDULE	
1	BASE
2	EMITTER
3	COLLECTOR

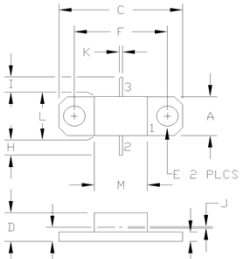
P44C7,C14



DIM	INCHES MIN	INCHES MAX	MILLIMETERS MIN	MILLIMETERS MAX
A	0.380	0.390	9.65	9.91
B	0.058	0.062	1.47	1.57
C	0.895	0.905	22.73	22.99
D	0.195	0.205	4.95	5.21
E	0.125	0.135	3.18	3.43
F	0.645	0.655	16.38	16.64
G	0.113	0.127	2.87	3.22
H	0.107	0.147	2.72	3.73
I	0.107	0.147	2.72	3.73
J	0.002	0.006	0.05	0.15
K	0.195	0.205	4.95	5.21
L	0.395	0.405	10.03	10.29
M	0.395	0.405	10.03	10.29

PIN	
1	BASE
2	COLLECTOR
3	EMITTER

P32C1,C3

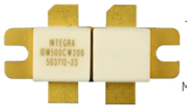


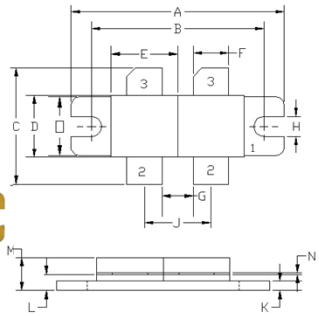
DIM	INCHES MIN	INCHES MAX	MILLIMETERS MIN	MILLIMETERS MAX
A	0.243	0.253	6.17	6.43
B	0.055	0.065	1.40	1.65
C	0.739	0.749	18.77	19.02
D	0.178	0.188	4.52	4.78
E	0.125	0.135	3.18	3.43
F	0.555	0.565	14.10	14.35
G	0.082	0.092	2.08	2.34
H	0.040	0.200	1.02	5.08
I	0.040	0.200	1.02	5.08
J	0.004	0.006	0.10	0.15
K	0.055	0.065	1.40	1.65
L	0.245	0.255	6.22	6.48
M	0.315	0.325	8.00	8.26

PIN SCHEDULE	
1	BASE
2	EMITTER
3	COLLECTOR

NOTES:
LID: LID-P32-1

P44I1,I5

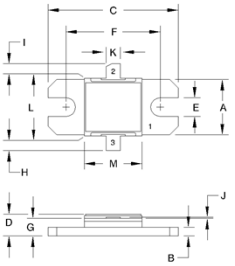




DIM	INCHES MIN	INCHES MAX	MILLIMETERS MIN	MILLIMETERS MAX
A	1.330	1.350	33.80	34.30
B	1.095	1.105	27.81	28.07
C	0.740	0.760	18.80	19.30
D	0.395	0.405	10.03	10.29
E	0.419	0.429	10.64	10.90
F	0.220	0.230	5.59	5.84
G	0.194	0.204	4.93	5.18
H	0.123	0.133	3.12	3.38
J	0.419	0.429	10.64	10.90
K	0.062	0.072	1.58	1.83
L	0.097	0.117	2.47	2.97
M	0.193	0.225	4.90	5.72
N	0.003	0.006	0.08	0.15
O	0.380	0.390	9.65	9.90

PIN SCHEDULE	
1	SOURCE
2	GATE
3	DRAIN

P44A3

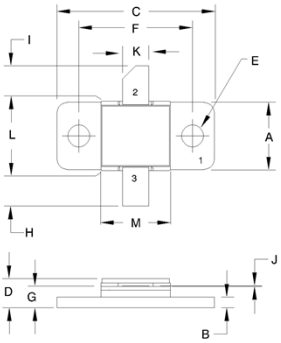


DIM	INCHES MIN	INCHES MAX	MILLIMETERS MIN	MILLIMETERS MAX
A	0.380	0.390	9.65	9.91
B	0.058	0.062	1.47	1.57
C	0.895	0.905	22.73	22.99
D	0.157	0.177	3.99	4.50
E	0.125	0.135	3.18	3.43
F	0.645	0.655	16.38	16.64
G	0.112	0.132	2.84	3.35
H	0.095	0.105	2.41	2.67
I	0.095	0.105	2.41	2.67
J	0.003	0.005	0.08	0.13
K	0.095	0.105	2.41	2.67
L	0.395	0.405	10.03	10.29
M	0.395	0.405	10.03	10.29

PIN	
1	BASE
2	COLLECTOR
3	EMITTER

NOTES:
LID: P44-2
FLANGE: F9003B5A1

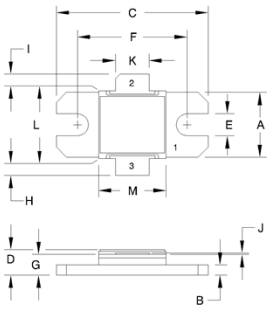
P44L1



DIM	INCHES MIN	INCHES MAX	MILLIMETERS MIN	MILLIMETERS MAX
A	0.380	0.390	9.65	9.91
B	0.058	0.062	1.47	1.57
C	0.895	0.905	22.73	22.99
D	0.155	0.175	3.93	4.44
E	0.125	0.135	3.18	3.43
F	0.645	0.655	16.38	16.64
G	0.112	0.132	2.84	3.35
H	0.190	0.210	4.82	5.33
I	0.190	0.210	4.82	5.33
J	0.002	0.005	0.05	0.13
K	0.140	0.160	3.55	4.06
L	0.392	0.402	9.95	10.21
M	0.392	0.402	9.95	10.21

PIN	
1	BASE
2	COLLECTOR
3	EMITTER

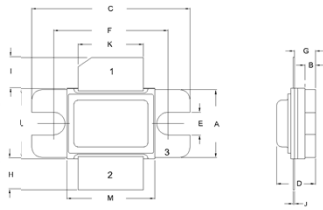
P44C3



DIM	INCHES MIN	INCHES MAX	MILLIMETERS MIN	MILLIMETERS MAX
A	0.380	0.390	9.65	9.91
B	0.058	0.062	1.47	1.57
C	0.895	0.905	22.73	22.99
D	0.157	0.177	3.99	4.50
E	0.125	0.135	3.18	3.43
F	0.645	0.655	16.38	16.64
G	0.112	0.132	2.84	3.35
H	0.035	0.105	0.89	1.91
I	0.035	0.105	0.89	2.67
J	0.003	0.005	0.08	0.13
K	0.195	0.205	4.95	5.21
L	0.395	0.405	10.03	10.29
M	0.395	0.405	10.03	10.29

PIN	
1	BASE
2	COLLECTOR
3	EMITTER

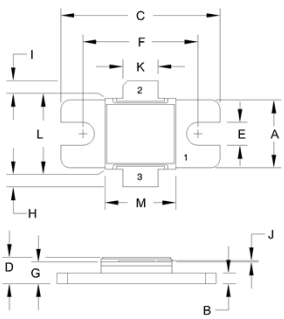
P54A5



DIM	INCHES MIN	INCHES MAX	MILLIMETERS MIN	MILLIMETERS MAX
A	0.380	0.390	9.65	9.91
B	0.055	0.065	1.39	1.65
C	0.895	0.905	22.73	22.99
D	0.225	0.235	5.71	5.97
E	0.125	0.135	3.18	3.43
F	0.645	0.655	16.38	16.64
G	0.120	0.130	3.12	3.25
H	0.160	0.190	4.06	4.82
I	0.160	0.190	4.06	4.82
J	0.004	0.006	0.10	0.15
K	.0365	0.375	9.27	9.52
L	0.395	0.405	10.03	10.29
M	0.495	0.505	12.57	12.82

PIN SCHEDULE	
1	COLLECTOR
2	EMITTER
3	BASE

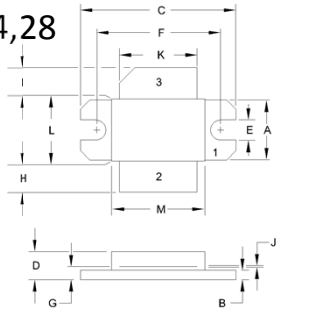
P44C4



DIM	INCHES MIN	INCHES MAX	MILLIMETERS MIN	MILLIMETERS MAX
A	0.380	0.390	9.65	9.91
B	0.055	0.065	1.40	1.65
C	0.895	0.905	22.73	22.99
D	0.150	0.180	3.81	4.57
E	0.125	0.135	3.18	3.43
F	0.645	0.655	16.38	16.64
G	0.110	0.130	2.79	3.30
H	0.125	0.129	3.17	3.28
I	0.125	0.129	3.17	3.28
J	0.003	0.005	0.08	0.13
K	0.195	0.205	4.95	5.21
L	0.395	0.405	10.03	10.29
M	0.395	0.405	10.03	10.29

PIN	
1	BASE
2	COLLECTOR
3	EMITTER

P64A2,6,24,28



DIM	INCHES MIN	INCHES MAX	MILLIMETERS MIN	MILLIMETERS MAX
A	0.380	0.390	9.65	9.91
B	0.055	0.065	1.40	1.65
C	0.905	1.005	22.99	25.53
D	0.178	0.188	4.52	4.78
E	0.125	0.135	3.18	3.43
F	0.795	0.805	20.19	20.45
G	0.079	0.091	2.00	2.31
H	0.185	0.215	4.70	5.46
I	0.185	0.215	4.70	5.46
J	0.002	0.004	0.05	0.10
K	0.495	0.505	12.57	12.83
L	0.395	0.405	10.03	10.29
M	0.595	0.605	15.11	15.37

PIN SCHEDULE	
1	BASE
2	EMITTER
3	COLLECTOR

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