Diodes (continued)

Please reference artwork on previous page.

Surface Mount RF Schottky Barrier Diodes

Mfr.'s Type		Fig.	Min. V_{BR} (V) @ 10 µA †I_R = 100 µA	Max. C_T (pF) @ V_R = 0 V	Max. V_F @ 1 mA (mV) f = 100 MHz †I_F = 10 mA ‡I_F = 5 mA
Bulk	Tape and Reel				
5082-2800	—	1	70	2.0	410
HSMS-2800-BLK	—	2	70	2.0	410
HSMS-2802-BLK	HSMS-2802-TR1	4	70	2.0	400
HSMS-2804-BLK	—	3	70	2.0	400
HSMS-2805-BLK	—	5	70	2.0	400
5082-2810	—	1	20	1.2	400
HSMS-2812-BLK	HSMS-2812-TR1	4	20	1.2	400
HSMS-2814-BLK	—	3	20	1.2	400
HSMS-2815-BLK	HSMS-2815-TR1	5	20	1.2	400
5082-2835	—	1	—	—	480
HSMS-2820-BLK	—	2	15	1.0	340
HSMS-2822-BLK	HSMS-2822-TR1	4	15	1.0	340
HSMS-2823-BLK	—	6	15	1.0	340
HSMS-2824-BLK	—	3	15	1.0	340
HSMS-2825-BLK	HSMS-2825-TR1	5	15	1.0	340

Surface Mount RF Schottky Barrier Diodes (continued)

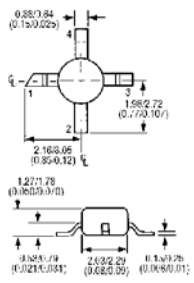
Mfr.'s Type		Fig.	Min. V_{BR} (V) @ 10 µA †I_R = 100 µA	Max. C_T (pF) @ V_R = 0 V	Max. V_F @ 1 mA (mV) f = 100 MHz †I_F = 10 mA ‡I_F = 5 mA
Bulk	Tape and Reel				
HSMS-2829-BLK	—	7	15	1.0	340

Surface Mount High Performance Schottky Diodes

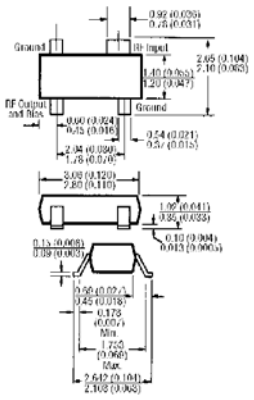
DC Electrical Specifications: T_A = +25°C, single diode.

Mfr.'s Type		Fig.	Max. Forward Voltage V_F (mV) IF = 1.0 mA	Min. Breakdown Voltage V_{BR} (V) I_R = 10 µA	Typ. C_T (pF) @ VR = –0.5 to –1.0 V f = 1 MHz
Bulk	Tape and Reel				
HSMS-2850-BLK	—	2	150	250	0.30
—	HSMS-2852-TR1	4	150	250	0.30
HSMS-2855-BLK	—	5	150	250	0.30
HSMS-2863-BLK	—	6	250	350	0.25

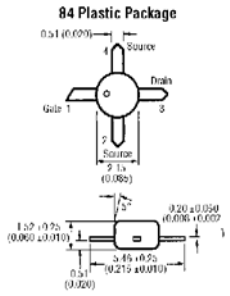
86 Plastic Package



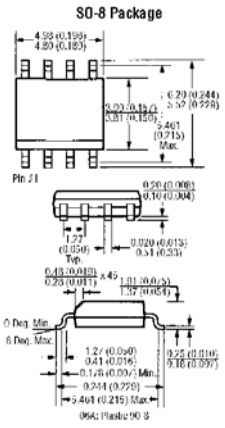
SOT-143 Package



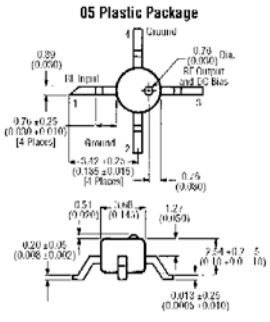
84 Plastic Package



SO-8 Package



05 Plastic Package



Notes for Packages:
(unless otherwise specified)

1. All Dimensions are in millimeters (inches)
2. Tolerances
   In. — .xxx = ±0.005
   mm. — .xx = ±0.13

Silicon Monolithic Integrated Circuits

Low Noise Amplifiers

Typical specifications at +25°C case temperature.

Mfr.'s Type	GP @ 0.1 GHz (dB)	GP @ 1 GHz (dB)	NF @ 1 GHz (dB)	P_{1dB} (dBm)	Min. Supply Voltage (V_{cc})*	Device Voltage (V_d)*	Device Current (mA)*	Package
INA-02186-BLK	31.5	28.5	2.0†	+11.0	5.5	5.5	35	86 Plastic
INA-10386-BLK	25.0	25.0	3.7†	+11.0	6.0	6.0	50	86 Plastic
MSA-0611-BLK	19.5	15.0	3.2	+2.0	5.0	3.3	16	SOT-143 SM Plastic

*Refer to schematic drawing. †Noise figure at 0.5 GHz.

General Purpose GaAs FETs

Typical specifications at +25°C case temperature.

Mfr.'s Type	Gate Width (µm)	Optimum Freq. Range (GHz)	Test Freq. (GHz)	NF_o (dB)	G_a (dB)	P_{1dB} (dBm)	Package
ATF-26884-STR	250	2.0-16	12	2.2	9.0	+18	84 Plastic

High Speed Digital Communications

Variable Gain Control Amplifier

Typical specifications at +25°C case temperature.

Mfr.'s Type	GP @ (dB)	Gain Control Range (dB)	3 db Bandwidth (GHz)	P_{1dB} @ 0.5 GHz	Supply Voltage (V)	Device Current (mA)	Package
IVA-14208-STR	24 @ 1.0 GHz	34 @ 1.0 GHz	2.5	—	6	3.8	SO-8 SM Plastic

Wide Dynamic Range Amplifier

Typical specifications at +25°C case temperature.

Mfr.'s Type	GP @ 0.1 GHz (dB)	GP @ 1 GHz (dB)	NF (dB)	P_{1dB} (dBm)	Min. Supply Voltage (V_{cc})*	Device Voltage (V_d)*	Device Current (mA)*	Package
MSA-1105-STR	12.5	10.5	4.2	+17.5	8	5.5	60	05 Plastic

*Refer to schematic drawing.

Low Noise Amplifier

Typical specifications at +25°C case temperature.

Mfr.'s Type	GP @ 0.1 GHz (dB)	GP @ 1 GHz (dB)	NF @ 1 GHz (dB)	P_{1dB} (dBm)	Min. Supply Voltage (V_{cc})*	Device Voltage (V_d)*	Device Current (mA)*	Package
INA-03184-BLK	25.5	25.0	2.6	–2.0	4	4.0	10	84 Plastic

*Refer to schematic drawing.

3-Port Double-Balanced Mixers

Typical specifications at +25°C case temperature.

Mfr.'s Type	RF and LO Freq. (GHz)	Active Max. IF Freq. with Gain (GHz)	RF-IF Gain (dB)	IP_3 (dBm)	LO-RF Iso. (dB)	Supply Voltage (V)	Device Current (mA)	Package
IAM-82008-STR	0.05-5.0	Up to 2.0	15.0*	+18*	22*	10	55	SO-8 SM
IAM-81008-STR	0.05-5.0	Up to 1.0	8.5†	+3†	30†	5	13	SO-8 SM

*Noise figure at 0.1 GHz. †Refer to schematic drawing.

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