INTERSIL

2N5484-2N5486
N-Channel JFET

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FEATURES

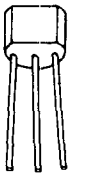
- Specified for 400 MHz Operation
- Can Be Used as a Low Capacitance Switch
- Economy Packaging
- $C_{rss} < 1.0$ pF

ABSOLUTE MAXIMUM RATINGS

Drain-Gate Voltage	25 V
Source Gate Voltage	25 V
Drain Current	30 mA
Forward Gate Current	10 mA
Total Device Dissipation @ 25°C	310 mW
Derate above 25°C	2.82 mW/°C
Operating Junction Temperature Range	−65°C to +150°C
Storage Temperature Range	−65°C to +150°C

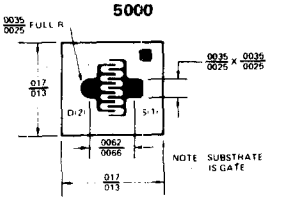
PIN CONFIGURATION

TO-92



CHIP TOPOGRAPHY

5000



ORDERING INFORMATION

TO-92	WAFER	DICE
2N5484	2N5484/W	2N5484/D
2N5485	2N5485/W	2N5485/D
2N5486	2N5486/W	2N5486/D

ELECTRICAL CHARACTERISTICS (25°C unless otherwise noted)

PARAMETER		2N5484 MIN	2N5484 MAX	2N5485 MIN	2N5485 MAX	2N5486 MIN	2N5486 MAX	UNITS	TEST CONDITIONS	
I_{GSS}	Gate Reverse Current		−1.0		−1.0		−1.0	nA	V_{GS} = −20 V, V_{DS} = 0	
			−200		−200		−200			T_A = +100°C
BV_{GSS}	Gate-Source Breakdown Voltage	−25		−25		−25		V	I_G = −1 μA, V_{DS} = 0	
$V_{GS(off)}$	Gate-Source Cutoff Voltage	−0.3	−3.0	−0.5	−4.0	−2.0	−6.0		V_{DS} = 15 V, I_D = 10 nA	
I_{DSS}	Saturation Drain Current	1.0	5.0	4.0	10	8.0	20	mA	V_{DS} = 15 V, V_{GS} = 0 (Note 1)	
g_{fs}	Common-Source Forward Transconductance	3000	6000	3500	7000	4000	8000	μmhos	V_{DS} = 15 V, V_{GS} = 0	f = 1 kHz
g_{os}	Common-Source Output Conductance		50		60		75			
$Re(y_{fs})$	Common-Source Forward Transconductance	2500								f = 100 MHz
				3000		3500				f = 400 MHz
$Re(y_{os})$	Common-Source Output Conductance		75							f = 100 MHz
					100		100			f = 400 MHz
$Re(y_{is})$	Common-Source Input Conductance		100							f = 100 MHz
					1000		1000			f = 400 MHz
C_{iss}	Common-Source Input Capacitance		5.0		5.0		5.0	pF		f = 1 MHz
C_{rss}	Common-Source Reverse Transfer Capacitance		1.0		1.0		1.0			
C_{oss}	Common-Source Output Capacitance		2.0		2.0		2.0			
NF	Noise Figure		2.5		2.5		2.5	dB	V_{DS} = 15 V, V_{GS} = 0, R_G = 1 MΩ	f = 1 kHz
			3.0						V_{DS} = 15 V, I_D = 1 mA, R_G = 1 kΩ	
					2.0		2.0		V_{DS} = 15 V, I_D = 4 mA, R_G = 1 kΩ	f = 100 MHz
					4.0		4.0			f = 400 MHz
G_{ps}	Common-Source Power Gain	16	25						V_{DS} = 15 V, I_D = 1 mA	f = 100 MHz
				18	30	18	30		V_{DS} = 15 V, I_D = 4 mA	
				10	20	10	20			f = 400 MHz