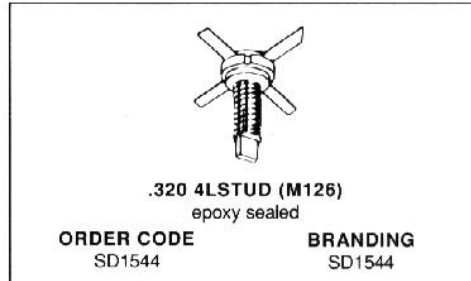


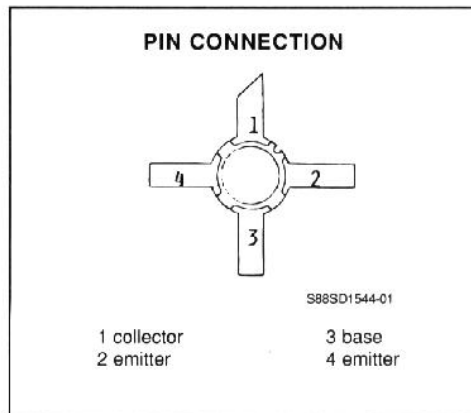
RF & MICROWAVE TRANSISTORS
MICROWAVE POWER TRANSISTORS FOR CLASS C APPLICATIONS

- GOLD METALLIZATION
- HERMETIC STRIPLINE PACKAGE
- 1.0W @ 2GHz WITH GREATER THAN 5dB GAIN
- DESIGNED FOR AMPLIFIERS AND OSCILLATORS



DESCRIPTION

The SD1544 is a gold metallized, silicon NPN transistor. It is primarily designed for Class A, B, and C, VHF/UHF and microwave amplifier or oscillator applications. The device is particularly suitable for use in microwave communications links, ECM, phased array radar and L Band Telemetry. The SD1544 is available in a stripline stud package featuring low inductance leads.



ABSOLUTE MAXIMUM RATINGS ($T_{case} = 25^{\circ}C$)

Symbol	Parameter	Value	Unit
V_{CEO}	Collector - Base Voltage	50.0	V
V_{CEO}	Collector - Emitter Voltage	30.0	V
V_{EBO}	Emitter - Base Voltage	3.5	V
I_C	Collector Current (max.)	0.25	A
P_{Tot}	Total Device Dissipation at + 25°C	5.8	W
T_{Stg}	Storage Temperature	- 65 to + 200	°C
T_j	Junction Temperature	+ 200	°C

THERMAL DATA

$R_{th(j-c)}$	Junction-case Thermal Resistance	30.2	°C/W
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SD1544**ELECTRICAL CHARACTERISTICS** ($T_{\text{case}} = 25^{\circ}\text{C}$)

STATIC

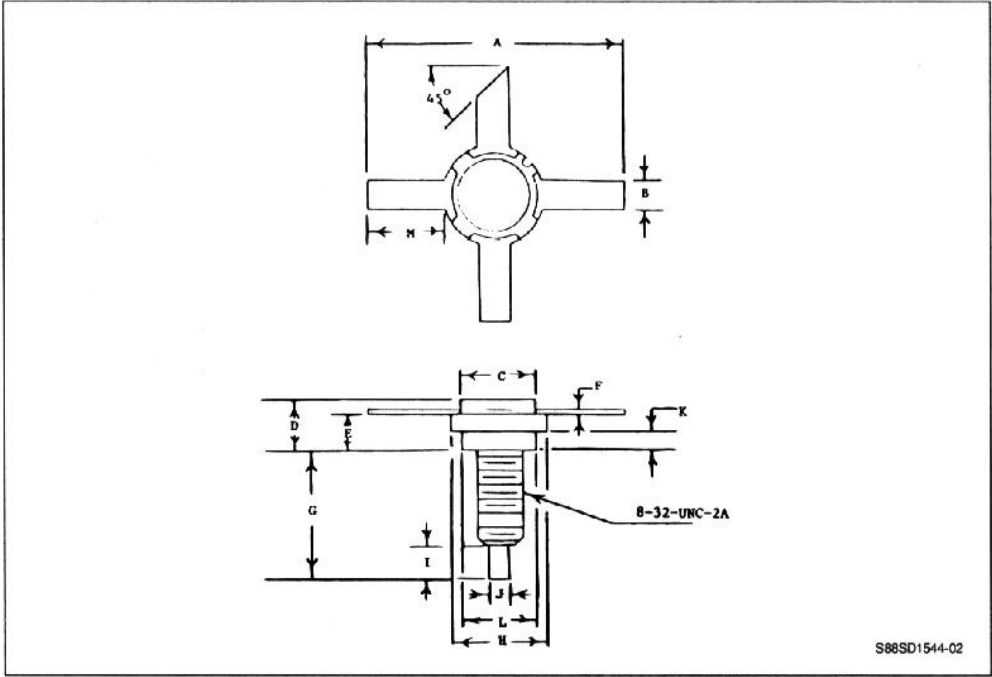
Symbol	Test Conditions		Value			Unit
			Min.	Typ.	Max.	
BV_{CBO}	$I_{\text{C}} = 1\text{mA}$	$I_{\text{E}} = 0$	50.0			V
BV_{CEO}	$I_{\text{C}} = 5\text{mA}$	$I_{\text{B}} = 0$	30.0			V
BV_{EBO}	$I_{\text{E}} = 1\text{mA}$	$I_{\text{C}} = 0$	3.5			V
h_{FE}	$V_{\text{CE}} = 5.0\text{V}$	$I_{\text{C}} = 50\text{mA}$	10.0		250.0	

DYNAMIC

Symbol	Test Conditions		Value			Unit
			Min.	Typ.	Max.	
P_{o}	$f = 2000\text{MHz}$	$V_{\text{CE}} = 28.0\text{V}$	1.0			W
P_{g}	$f = 2000\text{MHz}$	$V_{\text{CE}} = 28.0\text{V}$	5.0			dB
C_{ob}	$f = 1\text{MHz}$	$V_{\text{CE}} = 28.0\text{V}$		2.0	2.5	pF

PACKAGE MECHANICAL DATA

.320 4LSTUD



	Minimum Inches	Maximum Inches
A	.835	
B	.095	.105
C	.245	.250
D	.155	.175
E	.110	.130
F	.003	.007

	Minimum Inches	Maximum Inches
G	.435	.465
H	.316	.324
I	.115	.145
J/K	.055	.065
L	.245	.250
M	.260	