

**SSM****SOLID STATE MICROWAVE****SD1545**

THOMSON-CSF COMPONENTS CORPORATION

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**2 GHz MICROWAVE POWER TRANSISTOR****DESCRIPTION**

The SSM SD1545 is a gold metalized 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 communication links, ECM, phased array radar and L Band Telemetry. The SD1545 is available in a hermetically sealed stripline stud package featuring low inductance leads which are particularly useful in high frequency circuits as well as lumped constant circuits.

**FEATURES**

- Gold metalization
- Low inductance hermetic stripline package
- 2.5 watts @ 2 GHz with > 5 dB gain
- Designed for amplifiers and oscillators

**ABSOLUTE MAX. RATING**

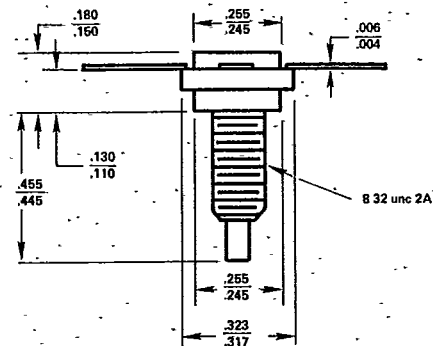
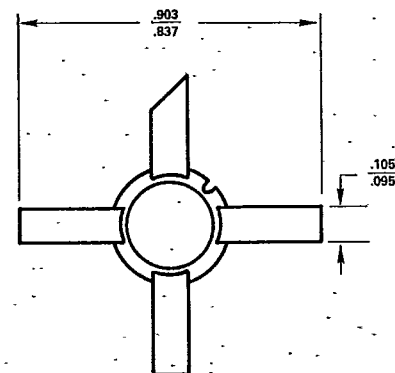
$V_{CBO}$	: Collector-Base Voltage	50.0 V
$V_{CEO}$	: Collector-Emitter Voltage	30.0 V
$V_{EBO}$	: Emitter-Base Voltage	3.5 V
PT.	: Total Device Dissipation @ 25°C	16.0 W
$T_j$	: Junction Temperature (max.)	+200° C
$T_s$	: Storage Temperature	-65° C to +200° C

**ELECTRICAL CHARACTERISTICS**

Characteristics	Symbol	Test Conditions	Min.	Typ.	Max.	Unit
Collector to Base Breakdown Voltage	$BV_{CBO}$	$I_c = 1 \text{ mA}, I_e = 0$	50.0	—	—	$V_{dc}$
Collector Emitter Breakdown Voltage	$BV_{CEO}$	$I_c = 5 \text{ mA}, I_b = 0$	30.0	—	—	$V_{dc}$
Emitter Base Breakdown Voltage	$BV_{EBO}$	$I_e = 1.0 \text{ mA}, I_c = 0$	3.5	—	—	$V_{dc}$
DC Current Gain	$h_{FE}$	$V_{ce} = 5V, I_c = 50 \text{ mA}$	20.0	—	250.0	—
Output Capacitance	$C_{ob}$	$V_{cb} = 28V, 1 \text{ MHz}$	—	—	5.0	pF

**RF CHARACTERISTICS**

Amplifier Power Out	$P_o$	$V_{cc} = 28V, F = 2 \text{ GHz}$	2.5	—	—	Watts
Amplifier Power Gain	$P_g$	$V_{cc} = 28V, F = 2 \text{ GHz}$	5.0	—	—	dB

**.280 4L STUD HERMETIC**

SD - - 01545 - X

