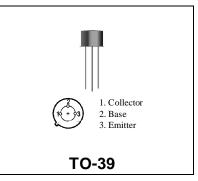


SD1127

RF & MICROWAVE TRANSISTORS VHF FM MOBILE APPLICATIONS

Features

- 175 MHz
- 12.5 VOLTS
- $P_{OUT} = 4.0 \text{ W MINIMUM}$
- G_P = 12.0 dB
- GROUNDED EMITTER



DESCRIPTION:

The SD1127 is a epitaxial silicon NPN transistor designed primarily for VHF mobile communications. The chip of this transistor is mounted on a beryllia pill to isolate the collector lead and ground the emitter lead for high gain performance

ABSOLUTE MAXIMUM RATINGS (Tcase = 25°C)

Symbol	Parameter	Value	Unit
V _{сво}	Collector-Base Voltage	36	V
V _{CEO}	Collector-Emitter Voltage	18	V
V _{CES}	Collector-Emitter Voltage	36	V
V EBO	Emitter – Base Voltage	4.0	V
lc	Collector Current	.64	Α
Ptot	Total Power Dissipation	8.0	W
T _{STG}	Storage Temperature	-65 + 200	۵°
ΤJ	Junction Temperature	+200	°C

Thermal Data

R _{TH(J-C)} Junction-case Thermal Resistance21.9°C/W

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ELECTRICAL SPECIFICATIONS (Tcase = 25° C)

STATIC

Symbol	Test Conditions			Value		
			Min.	Typ.	Max.	Unit
BV _{CES}	$I_c = 5 \text{ mA}$	V _{BE} = 0	36			V
BV _{CEO}	I _c = 10 mA	I _B = 0	18			V
BV _{EBO}	$I_E = 1 \text{ mA}$	$I_{\rm C} = 0$	4.0			V
I _{сво}	V _{CB} = 15.0 V	I _E = 0			.25	mA
H _{FE}	V _{CE} = 5.0 V	I _c = 50 mA	10		100	

DYNAMIC

Symbol	Test Conditions		Value				
				Min.	Тур.	Max.	Unit
Pout	f =175 MHz	V _{CE} =12.5 V		4.0			W
G _{PE}	f =175 MHz	V _{CE} =12.5 V		12.0			dB
Cob	f =1 MHz	V _{CE} =15.0 V				20.0	pf

IMPEDANCE DATA

FREQ	$\mathbf{Z}_{IN}(\Omega)$	$\mathbf{Z}_{CL}(\Omega)$
136 MHz	3.0 – j3.8	12.8 – j11
155 MHz	4.0 – j2.0	11 – j14.8
175 MHz	4.3 – j5.8	13 – j20

 $P_{IN} = 0.2W$ $V_{CC} = 12.6V$

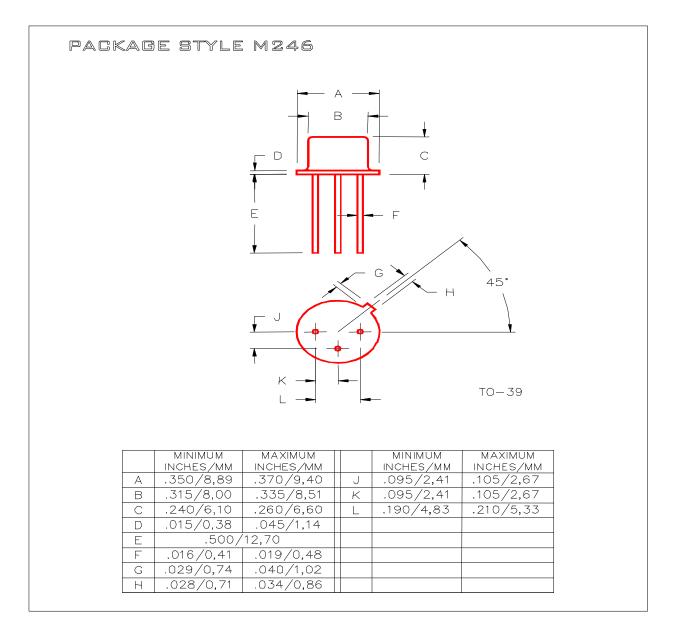
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PACKAGE MECHANICAL DATA



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