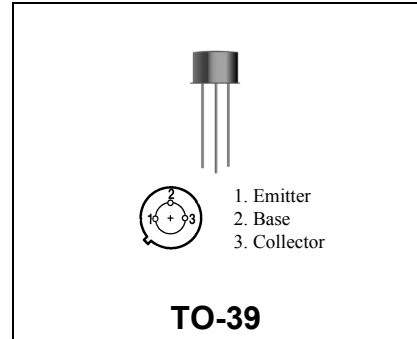


SD1127
**RF & MICROWAVE TRANSISTORS
VHF FM MOBILE APPLICATIONS**
Features

- 175 MHz
- 12.5 VOLTS
- $P_{OUT} = 4.0$ 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 (T_{case} = 25°C)

Symbol	Parameter	Value	Unit
V_{CBO}	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
I_C	Collector Current	.64	A
P_{tot}	Total Power Dissipation	8.0	W
T_{STG}	Storage Temperature	-65 + 200	°C
T_J	Junction Temperature	+200	°C

Thermal Data

$R_{TH(J-C)}$	Junction-case Thermal Resistance	21.9	°C/W
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ELECTRICAL SPECIFICATIONS (T_{case} = 25°C)
STATIC

Symbol	Test Conditions		Value			Unit
			Min.	Typ.	Max.	
BV _{CES}	I _C = 5 mA	V _{BE} = 0	36	---	---	V
BV _{CEO}	I _C = 10 mA	I _B = 0	18	---	---	V
BV _{EBO}	I _E = 1 mA	I _C = 0	4.0	---	---	V
I _{CBO}	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			Unit
			Min.	Typ.	Max.	
P _{OUT}	f = 175 MHz	V _{CE} = 12.5 V	4.0	---	---	W
G _{PE}	f = 175 MHz	V _{CE} = 12.5 V	12.0	---	---	dB
C _{ob}	f = 1 MHz	V _{CE} = 15.0 V	---	---	20.0	pf

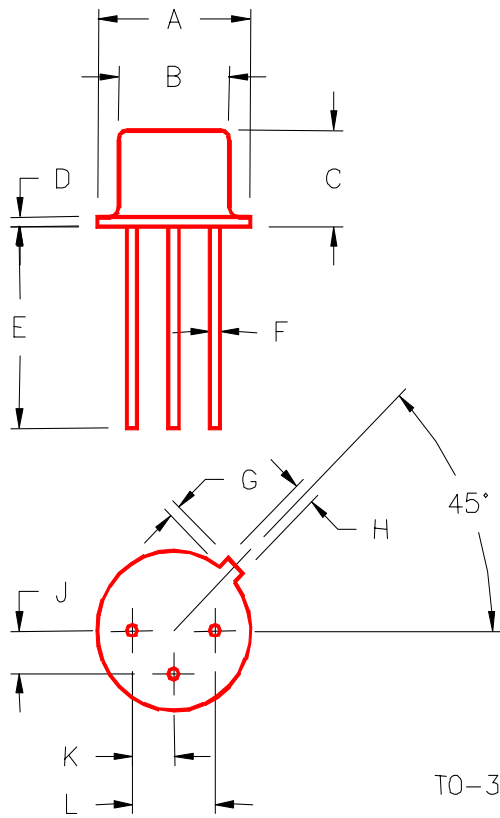
IMPEDANCE DATA

FREQ	Z _{IN} (Ω)	Z _{CL} (Ω)
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

PACKAGE MECHANICAL DATA

PACKAGE STYLE M246



	MINIMUM INCHES/MM	MAXIMUM INCHES/MM		MINIMUM INCHES/MM	MAXIMUM INCHES/MM
A	.350/8,89	.370/9,40	J	.095/2,41	.105/2,67
B	.315/8,00	.335/8,51	K	.095/2,41	.105/2,67
C	.240/6,10	.260/6,60	L	.190/4,83	.210/5,33
D	.015/0,38	.045/1,14			
E	.500/12,70				
F	.016/0,41	.019/0,48			
G	.029/0,74	.040/1,02			
H	.028/0,71	.034/0,86			