



Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from,Europe,America and south Asia,supplying obsolete and hard-to-find components to meet their specific needs.

With the principle of “Quality Parts,Customers Priority,Honest Operation,and Considerate Service”,our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip,ALPS,ROHM,Xilinx,Pulse,ON,Everlight and Freescale. Main products comprise IC,Modules,Potentiometer,IC Socket,Relay,Connector.Our parts cover such applications as commercial,industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!



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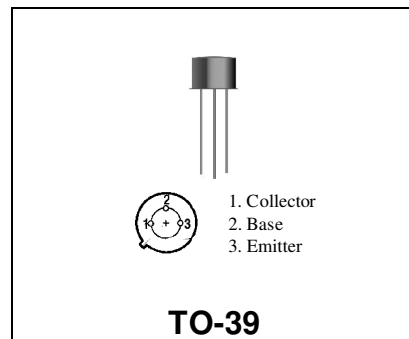


SD1127

RF & MICROWAVE TRANSISTORS VHF FM MOBILE APPLICATIONS

Features

- 175 MHz
- 12.5 VOLTS
- $P_{OUT} = 4.0 \text{ W MINIMUM}$
- $G_P = 12.0 \text{ dB}$
- 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 ($T_{case} = 25^{\circ}\text{C}$)

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	$^{\circ}\text{C}$
T_J	Junction Temperature	+200	$^{\circ}\text{C}$

Thermal Data

$R_{TH(J-C)}$	Junction-case Thermal Resistance	21.9	$^{\circ}\text{C/W}$
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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
Cob	f = 1 MHz	V_{CE} = 15.0 V	---	---	20.0	pf

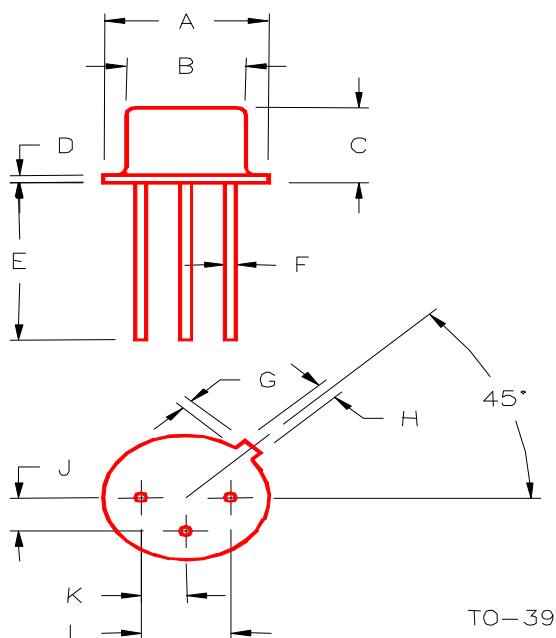
IMPEDANCE DATA

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			