



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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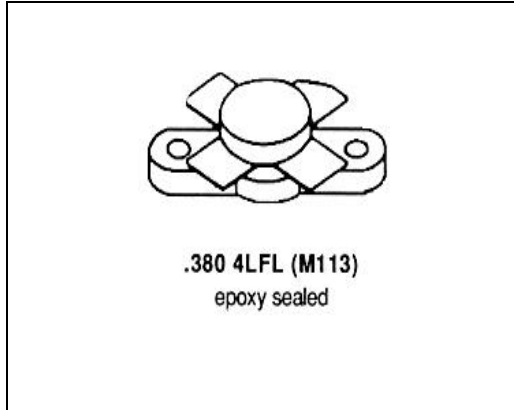


SD1013-03

RF & MICROWAVE TRANSISTORS VHF APPLICATIONS

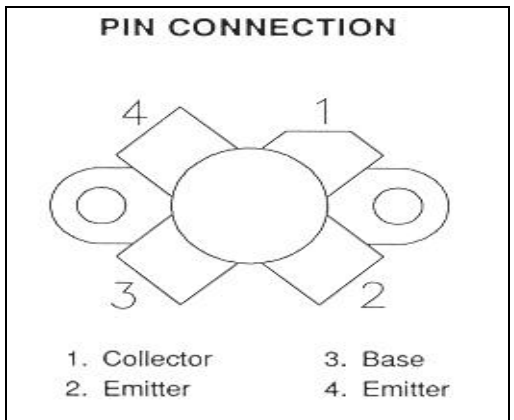
Features

- 150 MHz
 - 28 VOLTS
 - P_{OUT} = 10 WATTS
 - G_P = 10 dB MINIMUM
 - η = 50%
 - COMMON EMITTER CONFIGURATION
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DESCRIPTION:

The SD1013-03 is a 28V epitaxial silicon NPN planar transistor designed primarily for FM communications. This device utilizes emitter ballasting for improved ruggedness and reliability.



ABSOLUTE MAXIMUM RATINGS

Symbol	Parameter	Value	Unit
V _{CBO}	Collector-base Voltage	65	V
V _{CEO}	Collector-emitter Voltage	35	V
V _{EBO}	Emitter-Base Voltage	4.0	V
I _C	Device Current	1.0	A
P _{DISS}	Power Dissipation	13	W
T _J	Junction Temperature	+200	°C
T _{STG}	Storage Temperature	-65 to +150	°C

Thermal Data

R _{TH(J-C)}	Junction-case Thermal Resistance	13.5	°C/W
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ELECTRICAL SPECIFICATIONS (T_{case} = 25°C)
STATIC

Symbol	Test Conditions		Value			Unit
			Min.	Typ.	Max.	
BV_{CBO}	I_C = 200 mA	I_E = 0 mA	65	---	---	V
BV_{CES}	I_C = 200 mA	V_{BE} = 0 V	65	---	---	V
BV_{CEO}	I_C = 200 mA	I_B = 0 mA	35	---	---	V
BV_{EBO}	I_E = 10 mA	I_C = 0 mA	4.0	---	---	V
I_{CBO}	V_{CB} = 30 V	I_E = 0 mA	---	---	1.0	mA
H_{FE}	V_{CE} = 5 V	I_C = 200 mA	10	---	200	---

DYNAMIC

Symbol	Test Conditions			Value			Unit
				Min.	Typ.	Max.	
P_{OUT}	f = 150 MHz	P_{IN} = 1.0W	V_{CE} = 28V	10	---	---	W
G_p	f = 150 MHz	P_{IN} = 1.0W	V_{CE} = 28V	10	---	---	dB
C_{OB}	f = 1 MHz	V_{CB} = 30V		---	---	15	pF

IMPEDANCE DATA

FREQ	Z _{IN} (Ω)	Z _{CL} (Ω)
150 MHz	3.0 + j0.5	31 + j19

P_{IN} = 1.0W
V_{CC} = 28V

SD1013-03

PACKAGE MECHANICAL DATA

