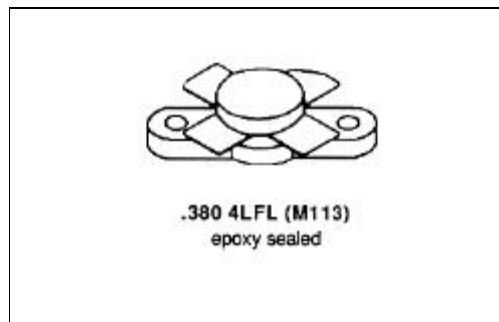


MS1020

**RF & MICROWAVE TRANSISTORS
 HF SSB APPLICATIONS**

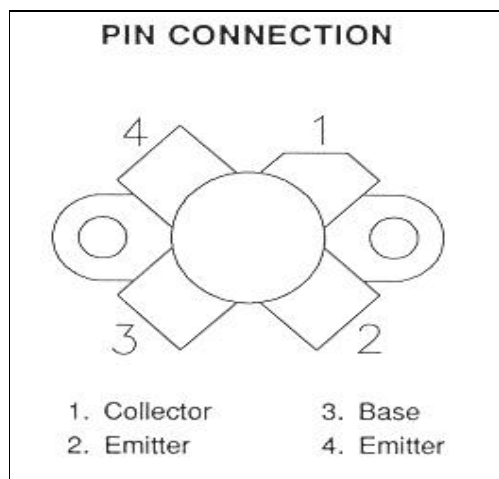
Features

- 2-30 MHz OPERATION SSB
- GOLD METALIZATION
- 65 W (PEP) WITH 18 dB GAIN OPERATED CLASS AB
- 16W (PEP) WITH 19 dB GAIN OPERATED CLASS A
- COMMON EMITTER CONFIGURATION



DESCRIPTION:

THE MS1020 IS A 50V, NPN SILICON PLANAR TRANSISTOR DESIGNED FOR 2-30 MHz SSB APPLICATIONS. THE MS1020 OFFERS THERMAL RELIABILITY AND EXCELLENT INTERMODULATION CHARACTERISTICS. DEVICE IS REQUIRED BY BOTH COMMERCIAL AND MILITARY APPLICATIONS.



ABSOLUTE MAXIMUM RATINGS

Symbol	Parameter	Value	Unit
V_{CBO}	Collector-base Voltage	110	V
V_{CEO}	Collector-emitter Voltage	55	V
I_C	Device Current	3.25	A
P_{DISS}	Power Dissipation	127	W
T_J	Junction Temperature	200	°C
T_{STG}	Storage Temperature	-65 to +150	°C

Thermal Data

$R_{TH(J-C)}$	Thermal Resistance Junction-case	2.0	°C/W
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ELECTRICAL SPECIFICATIONS (Tcase = 25°C)

STATIC

Symbol	Test Conditions	Value			Unit
		Min.	Typ.	Max.	
Bvebo	I _e = 10 mA	4	---	---	V
Bvces	I _c = 200 mA	110	---	---	V
Bvceo	I _e = 10 mA	55	---	---	V
HFE	V _{CE} = 6 V I _c = 1.4A	18	---	60	B

DYNAMIC

Symbol	Test Conditions	Value			Unit
		Min.	Typ.	Max.	
P _{out}	f = 30 MHz V _{CC} = 50V I _{CQ} = 50 mA	---	---	65	W
G _{pe}	P _{out} = 65W (PEP) V _{CC} = 50V I _{CQ} = 50 mA	16	18	---	dB
η _c	P _{out} = 65W (PEP) V _{CC} = 50V I _{CQ} = 50 mA	37	---	---	dB
I-MOD	P _{out} = 65W (PEP) V _{CC} = 50V I _{CQ} = 50 mA	---	---	-30	dBc
Conditions	f ₁ = 30.000 f ₂ = 30.001				

PACKAGE MECHANICAL DATA

