

GENERAL DESCRIPTION

The 2023-3 is an internally matched common base transistor providing 3 watts of RF CW Output power across the 2000-2300 MHz band. This hermetically sealed transistor is specifically designed for telemetry and telecommunication applications.

2023-3

3 WATTS - 24 VOLTS
2.0-2.3 GHz

MICROWAVE - BIPOLAR

ABSOLUTE MAXIMUM RATINGS

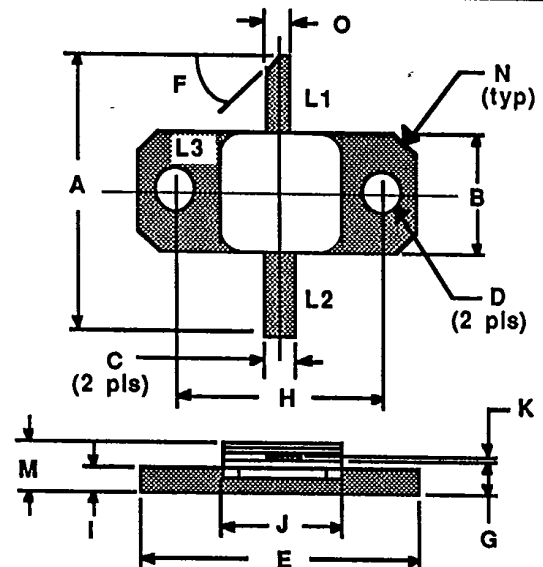
Maximum Power Dissipation @ 25°C Case Temperature 11 W

Maximum Voltage and Current

BVces Collector to Emitter Voltage 45 V
BVebo Emitter to Base Voltage 3.5 V
Ic Collector Current 0.5 A

Maximum Temperatures

Storage Temperature -65 to +200°C
Operating Junction Temperature +200°C



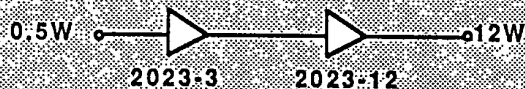
L1: C
L2: E
L3: B

DIM	Millimeter	TOL	Inches	TOL
A	16.51	.25	.650	.010
B	6.35	.13	.250	.005
C	2.54	.13	.100	.005
D	3.17 DIA	.13	.125 DIA	.005
E	14.22	.05	.560	.002
F	45°	5°	45°	5°
G	2.16	.13	.085	.005
H	18.92	.13	.745	.005
I	1.52	.13	.060	.005
J	6.35	.13	.250	.005
K	0.13	.02	.005	.001
M	4.06	REF	.160	REF
N	1.27x 45°	.13	.050 x 45°	.005
O	1.27	.13	.050	.005

TYPICAL AMPLIFIER LINE UP

Vcc= 22 Volts

Frequency Range= 2.0-2.3 GHz



2023-3-2

ELECTRICAL CHARACTERISTICS¹

SYMBOL	CHARACTERISTICS	TEST CONDITIONS	MIN.	TYP.	MAX.	UNITS
P _{out}	Power Output	V _{cc} = 22V	3.0			Watts
P _{in}	Power Input	P _{out} = 3.0W V _{cc} = 22V f = 2.0-2.3 GHz			0.6	Watts
P _g	Power Gain		7.0			dB
η_c	Collector Efficiency		35			%
VSWR	Load Mismatch Tolerance		$\infty:1$			
BV _{ebo}	Breakdown Voltage (Emitter to Base)	I _c = 0A, I _e = 20mA	3.5			Volts
BV _{ces}	Breakdown Voltage (Collector to Emitter)	V _{be} = 0A, I _c = 2mA	45			Volts
I _{cbo}	Collector Leakage Current	I _e = 0A, V _{cb} = 22V			1.0	mA
C _{ob}	Capacitance- Collector to Base	f = 1.0MHz, V _{cb} = 22V		5.0		pF
h _{fe}	DC-Current Gain	V _{ce} = 5V, I _c = 200mA	10		120	
θ_{jc}	Thermal Resistance	T _c = +25° C			16	°C/W

Note 1: T_c = +25°C

SPECIFICATIONS MAY BE SUBJECT TO CHANGE WITHOUT NOTICE