

NPN SILICON RF POWER TRANSISTOR

DESCRIPTION:

The **MRAL2023-12** is a Common Base Device Designed for Class C Amplifier Applications in L-Band FM Microwave Links.

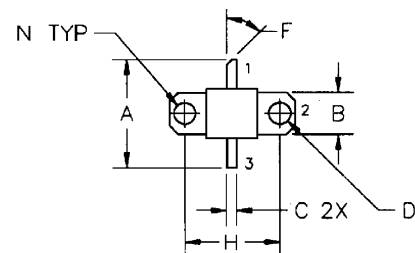
FEATURES INCLUDE:

- Gold Metalization
- Emitter Ballasting
- Input/Output Matching

MAXIMUM RATINGS

I_C	2.5 A
V_{CES}	40 V
P_{DISS}	38 W @ $T_C = 25\text{ }^\circ\text{C}$
T_J	$-65\text{ }^\circ\text{C}$ to $+200\text{ }^\circ\text{C}$
T_{STG}	$-65\text{ }^\circ\text{C}$ to $+150\text{ }^\circ\text{C}$
θ_{JC}	4.5 $^\circ\text{C/W}$

PACKAGE STYLE .250 2L FLG (C)



1 = COLLECTOR 2 = BASE
3 = EMITTER

CHARACTERISTICS $T_C = 25\text{ }^\circ\text{C}$

SYMBOL	TEST CONDITIONS	MINIMUM	TYPICAL	MAXIMUM	UNITS
BV_{CES}	$I_C = 100\text{ mA}$	40			V
BV_{EBO}	$I_E = 5.0\text{ mA}$	3.5			V
I_{CBO}	$V_{CB} = 22\text{ V}$			2.5	mA
h_{FE}	$V_{CE} = 5.0\text{ V}$ $I_C = 1.0\text{ A}$	10			---
C_{OB}	$V_{CB} = 22\text{ V}$ $f = 1.0\text{ MHz}$		20		pF
P_G	$V_{CE} = 22\text{ V}$ $f = 2000 - 2300\text{ MHz}$ $P_{OUT} = 12.0\text{ W}$	6.8	7.0		dB
η_C			45		%