

# NPN SILICON RF POWER TRANSISTOR

**DESCRIPTION:**

The **ASI MRF1150MB** is Designed for Class B and C, TACAN, IFF, and DME Applications up to 1090 MHz.

**FEATURES:**

- Class B and C Operation
- Common Base
- $P_G = 7.8$  dB at 150 W/1090 MHz
- **Omnigold™** Metalization System

**MAXIMUM RATINGS**

$I_C$	12 A
$V_{CB}$	70 V
$P_{DISS}$	583 W @ $T_C = 25^\circ\text{C}$
$T_J$	$-65^\circ\text{C}$ to $+200^\circ\text{C}$
$T_{STG}$	$-65^\circ\text{C}$ to $+150^\circ\text{C}$
$\theta_{JC}$	$0.3^\circ\text{C/W}$

**PACKAGE STYLE .280 4L PILL**

DIM	MINIMUM inches / mm	MAXIMUM inches / mm
A	.220 / 5.59	.230 / 5.84
B		1.055 / 26.80
C	.275 / 6.99	.285 / 7.24
D	.004 / 0.10	.006 / 0.15
E	.050 / 1.27	.060 / 1.52
F	.118 / 3.00	.130 / 3.30

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

SYMBOL	TEST CONDITIONS	MINIMUM	TYPICAL	MAXIMUM	UNITS
$BV_{CBO}$	$I_C = 50$ mA	70			V
$BV_{CES}$	$I_C = 50$ mA	70			V
$BV_{EBO}$	$I_E = 5.0$ mA	4.0			V
$I_{CBO}$	$V_{CB} = 50$ V			10	mA
$h_{FE}$	$V_{CE} = 5.0$ V $I_C = 5.0$ A	10			---
$P_G$	$V_{CC} = 50$ V $P_{OUT} = 150$ W $f = 1090$ MHz	7.8	9.8		dB
$\eta_C$		35	40		%



IMPEDANCE DATA

Freq	$Z_{IN}(\Omega)$	$Z_{CL}(\Omega)$
960 MHz	$3.8 - j3.8$	$4.9 + j2.0$
900 MHz	$7.6 - j3.4$	$5.0 + j0.4$
870 MHz	$9.4 - j2.6$	$4.3 + j.06$
800 MHz	$10.8 + j1.0$	$4.3 + j0.5$