

# NPN SILICON RF POWER TRANSISTOR

**DESCRIPTION:**

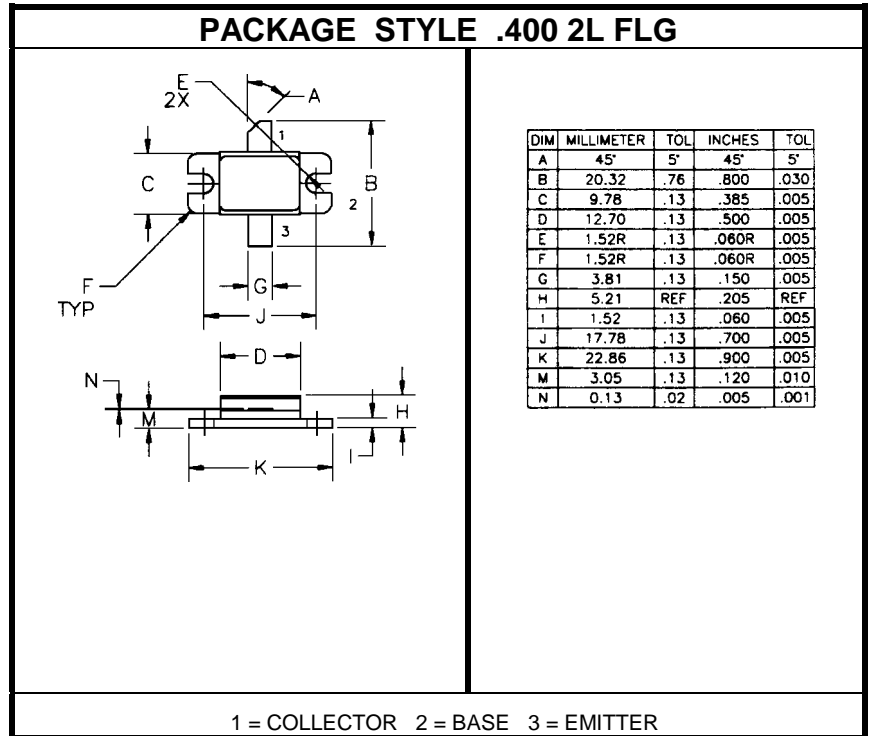
The **ASI MX0912B351Y** is Designed for General Purpose Class C Power Amplifier Applications up to 1215 MHz.

**FEATURES:**

- $P_G = 7.0$  dB min.at 50 W / 1215 MHz
- Common Base
- **Omnigold™** Metalization System

**MAXIMUM RATINGS**

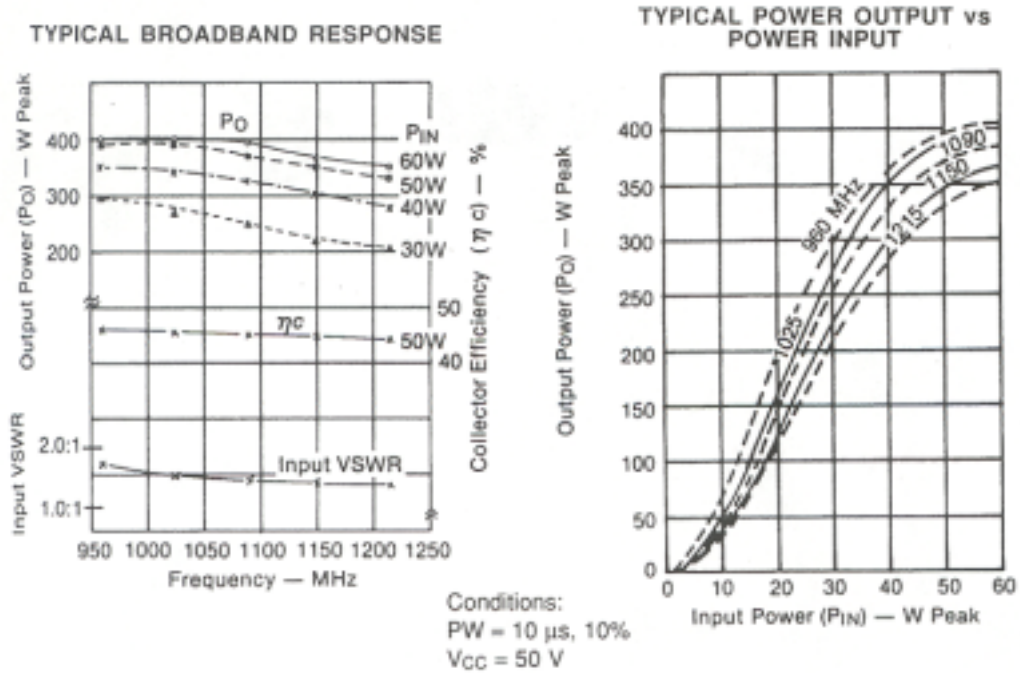
$V_{CE}$	20 V
$V_{CB}$	65 V
$V_{EB}$	3.0 V
$I_C$	21 A
$P_{DISS}$	960 W @ $T_C = 25^\circ C$
$T_J$	-65 °C to +200 °C
$T_{STG}$	-65 °C to +200 °C
$\theta_{JC}$	0.18 °C/W


**CHARACTERISTICS**  $T_C = 25^\circ C$ 

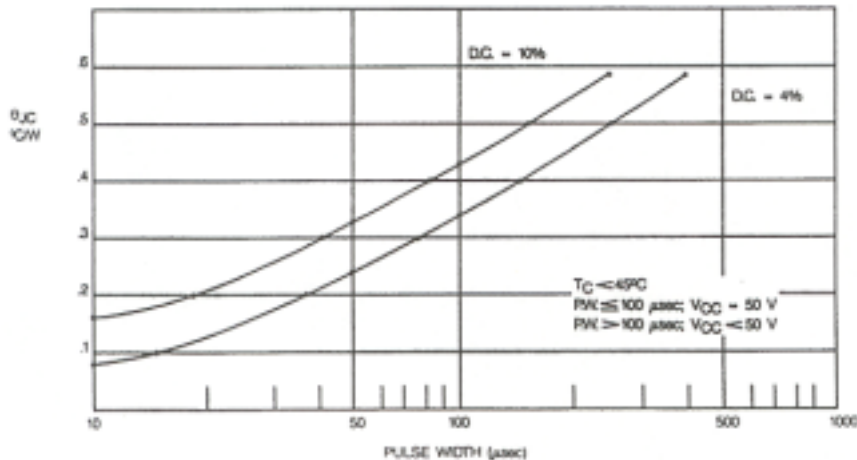
SYMBOL	TEST CONDITIONS	MINIMUM	TYPICAL	MAXIMUM	UNITS
$I_{CBO}$	$V_{CB} = 65$ V			140	mA
$I_{CES}$	$V_{CE} = 60$ V			140	mA
$I_{EBO}$	$V_{EB} = 1.5$ V			1.4	mA
$P_G$	$V_{CC} = 50$ $P_{OUT} = 325$ W $f = 960 - 1215$ MHz	7.0			dB
$\eta_c$		40			%



TYPICAL PERFORMANCE

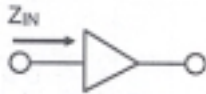


MAXIMUM THERMAL RESISTANCE vs PULSE WIDTH & DUTY CYCLE

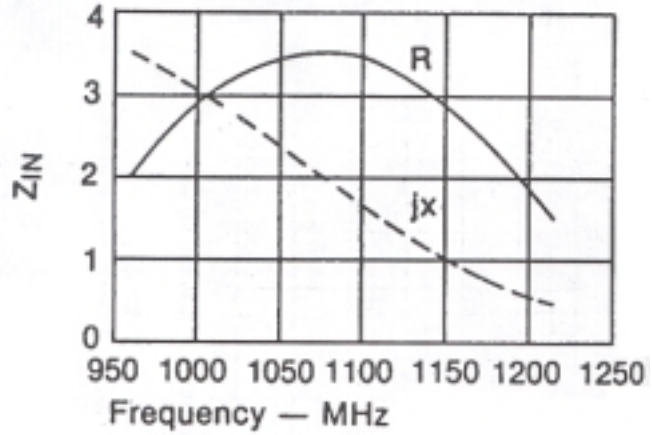


IMPEDANCE DATA

TYPICAL INPUT IMPEDANCE

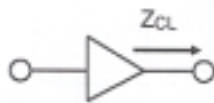


$P_{IN} = 60\text{ W}$   
 $V_{CC} = 50\text{ V}$   
 $Z_0 = 50\text{ ohms}$



FREQ.	$Z_{IN} (\Omega)$	$Z_{CL} (\Omega)$
L = 960 MHz	$2.0 + j 3.6$	$1.7 - j 2.2$
M = 1090 MHz	$3.5 + j 1.7$	$2.0 - j 1.7$
H = 1215 MHz	$1.6 + j 0.5$	$1.8 - j 2.0$

TYPICAL COLLECTOR LOAD IMPEDANCE



$P_{IN} = 60\text{ W}$   
 $V_{CC} = 50\text{ V}$   
 $Z_0 = 50\text{ ohms}$

