

# NPN SILICON RF POWER TRANSISTOR

**DESCRIPTION:**

The **ASI VMB40-12F** is Designed for 12.5 V, Medium Band Class C Applications.

**FEATURES:**

- Common Emitter
- $P_G = 10 \text{ dB @ } 40\text{W}/175\text{MHz}$
- **Omnigold™** Metalization System

**MAXIMUM RATINGS**

$I_C$	5.0 A
$V_{CBO}$	36 V
$V_{CEO}$	18 V
$V_{EBO}$	4.0 V
$P_{DISS}$	70 W @ $T_C = 25^\circ\text{C}$
$T_J$	-65 °C to +200 °C
$T_{STG}$	-65 °C to +150 °C
$\theta_{JC}$	2.5 °C/W

**PACKAGE STYLE .380 4L FLG**

DIM	MINIMUM inches / mm	MAXIMUM inches / mm
A	.220 / 5.59	.230 / 5.84
B	.785 / 19.94	
C	.720 / 18.29	.730 / 18.54
D	.970 / 24.64	.980 / 24.89
E		.385 / 9.78
F	.004 / 0.10	.006 / 0.15
G	.085 / 2.16	.105 / 2.67
H	.160 / 4.06	.180 / 4.57
I		.280 / 7.11
J	.240 / 6.10	.255 / 6.48

**ORDER CODE: ASI10743**

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

SYMBOL	TEST CONDITIONS	MINIMUM	TYPICAL	MAXIMUM	UNITS
$BV_{CBO}$	$I_C = 50 \text{ mA}$	36			V
$BV_{CES}$	$I_C = 50 \text{ mA}$	36			V
$BV_{CEO}$	$I_C = 50 \text{ mA}$	18			V
$BV_{EBO}$	$I_E = 10 \text{ mA}$	4.0			V
$I_{CES}$	$V_{CE} = 12.5 \text{ V}$			5.0	mA
$h_{FE}$	$V_{CE} = 5.0 \text{ V}$ $I_C = 5.0 \text{ A}$	20		200	---
$C_{OB}$	$V_{CB} = 12.5 \text{ V}$ $f = 1.0 \text{ MHz}$			165	pF
$P_G$ $\eta_C$	$V_{CC} = 12.5 \text{ V}$ $P_{OUT} = 40 \text{ W}$ $f = 88 \text{ MHz}$	10	60		dB %