

# GAE

# GREAT AMERICAN ELECTROINCS

## BM40-12

Silicon NPN power VHF transistor BM40-12 is designed for 12.6 volt wide-band large signal class C power amplifier applications in commercial and industrial equipment (primarily mobile applications).

Output Power: 20 Watt  
Frequency Range: 50-200 Mhz  
Voltage: 12.6 V  
Package Type: SOT-119

### Electrical Characteristics ( $T_{CASE}=40^{\circ}C$ )

SYMBOL	TEST CONDITIONS	MIN	TYP	MAX	UNIT
$P_{out}$	$f_o = 175 \text{ Mhz}/V_{cc}=12.6V/P_{IN}=10W$	40			W
$G_p$	$f_o = 175 \text{ Mhz}/V_{cc}=12.6V/P_{out}=40W$	6			dB
$\lambda_c$	$f_o = 175 \text{ Mhz}/V_{cc}=12.6V/P_{out}=40W$	50			%

### ABSOLUTE MAXIMUM RATINGS ( $T_{CASE} = 25^{\circ}C$ )

SYMBOL	PARAMETERS	VALUE	UNIT
$V_{CER}$	Collector-Emitter Voltage $R_{EB} \leq 100\Omega$	36	V
$V_{EBO}$	Emitter-Base Voltage	4	V
$I_c$	Continuous Collector Current	10	A
$P_C$	Collector Power Dissipation	85*	W
$T_j$	Junction Temperature	160	$^{\circ}C$
$R_{th(j-c)}$	Junction-Case Thermal Resistance	1.4	$^{\circ}C/W$

\*For Dynamic Operation  $T_{CASE} = 40^{\circ}C$