

# GAE

# GREAT AMERICAN ELECTROINCS

## SG9101AC

Silicon NPN high power UHF transistor SG9101AC (Transistor Assembly) is designed for Class C common base push-pull wide band output amplifier applications in the 350-700 Mhz frequency range.

Output Power: 100 Watt  
Frequency Range: 350-700 Mhz  
Voltage: 28 V  
Package Type: FO-57C (Module 4 lead)  
Input and Output Matched  
Common Emitter Configuration  
Emitter Ballasting  
Aluminum Metalization

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

SYMBOL	TEST CONDITIONS	MIN	TYP	MAX	UNIT
$P_{out}$	$f_o = 700 \text{ Mhz}/V_{cc}=28V/P_{IN}=28.5W$	100			W
$G_p$	$f_o = 700\text{Mhz}/V_{cc}=28V/P_{out}=100W$	5.5	9		dB
$\lambda_c$	$f_o = 700 \text{ Mhz} /V_{cc}=28V/P_{out}=100W$	50	55		%

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

SYMBOL	PARAMETERS	VALUE	UNIT
$V_{CBO}$	Collector-Base Voltage	50	V
$V_{EBO}$	Emitter-Base Voltage	4	V
$I_c$	Continuous Collector Current	15	A
$P_C$	Collector Power Dissipation	130*	W
$T_j$	Junction Temperature	190	$^{\circ}C$
$R_{th(j-c)}$	Junction-Case Thermal Resistance	1.15	$^{\circ}C/W$

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