

GAE

GREAT AMERICAN ELECTROINCS

2N5178

Silicon NPN high power UHF transistor 2N5178 is designed for power amplifier, frequency multiplier or auto-oscillator applications in industrial equipment (class C).

Output Power: 40 Watt (typ)
Frequency Range: 100-500 Mhz
Voltage: 28 V
Package Type: FO-85
Common Emitter Configuration
Ballast Emitter Resistors
Aluminum Metalization

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

SYMBOL	TEST CONDITIONS	MIN	TYP	MAX	UNIT
P_{out}	$f_o = 500 \text{ Mhz}/V_{cc}=28\text{V}/P_{IN}=20\text{W}$	35	40	50	W
G_p	$f_o = 500 \text{ Mhz}/V_{cc}=28\text{V}/P_{out}=40\text{W}$	3			dB
λ_c	$f_o = 500 \text{ Mhz}/V_{cc}=28\text{V}/P_{out}=20\text{W}$	45	55		%

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

SYMBOL	PARAMETERS	VALUE	UNIT
V_{CER}	Collector-Emitter Voltage $R_{EB}\leq 10 \Omega$	60	V
V_{EBO}	Emitter-Base Voltage	3.5	V
I_C	Continuous Collector Current	2	A
P_C	Collector Power Dissipation	54*	W
T_j	Junction Temperature	160	$^{\circ}\text{C}$
$R_{th(j-c)}$	Junction-Case Thermal Resistance	2.5	$^{\circ}\text{C}/\text{W}$

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

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