



ELECTRONICS, INC.  
 44 FARRAND STREET  
 BLOOMFIELD, NJ 07003  
 (973) 748-5089

## NTE299 Silicon NPN Transistor RF Power Amp, Driver

**Absolute Maximum Ratings:** ( $T_A = +25^\circ\text{C}$  unless otherwise specified)

Collector–Base Voltage, $V_{CB0}$ .....	75V
Collector–Emitter Voltage, $V_{CEO}$ .....	35V
Emitter–Base Voltage, $V_{EBO}$ .....	4V
Collector Current, $I_C$ .....	1A
Power Dissipation ( $T_C = +25^\circ\text{C}$ ), $P_C$ .....	4W
Operating Junction Temperature, $T_J$ .....	+125°C
Storage Temperature Range, $T_{stg}$ .....	-55° to +125°C
Thermal Resistance, Junction–to–Case, $R_{thJC}$ .....	25°C/W

**Electrical Characteristics:** ( $T_A = +25^\circ\text{C}$  unless otherwise specified)

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Collector–Base Breakdown Voltage	$V_{(BR)CBO}$	$I_C = 1\text{mA}, I_E = 0$	75	–	–	V
Collector–Emitter Breakdown Voltage	$V_{(BR)CEO}$	$I_C = 10\text{mA}, R_{BE} = \infty$	35	–	–	V
Emitter–Base Breakdown Voltage	$V_{(BR)EBO}$	$I_E = 1\text{mA}, I_C = 0$	4	–	–	V
Collector Cutoff Current	$I_{CBO}$	$V_{CB} = 30\text{V}, I_E = 0$	–	–	10	$\mu\text{A}$
DC Current Gain	$h_{FE}$	$V_{CE} = 10\text{V}, I_C = 0.1\text{A}$	10	70	300	
Power Output	$P_O$	$V_{CC} = 12\text{V}, f = 27\text{MHz}, P_{IN} = 75\text{mW}, I_C < 166\text{mA}$	1.2	1.4	–	W

