

NTE299

Silicon NPN Transistor

RF Power Amp, Driver

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

Collector–Base Voltage, V_{CBO}	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	μA
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

