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

NTE282
Silicon NPN Transistor
Final RF Power Amp, Switch

Applications:

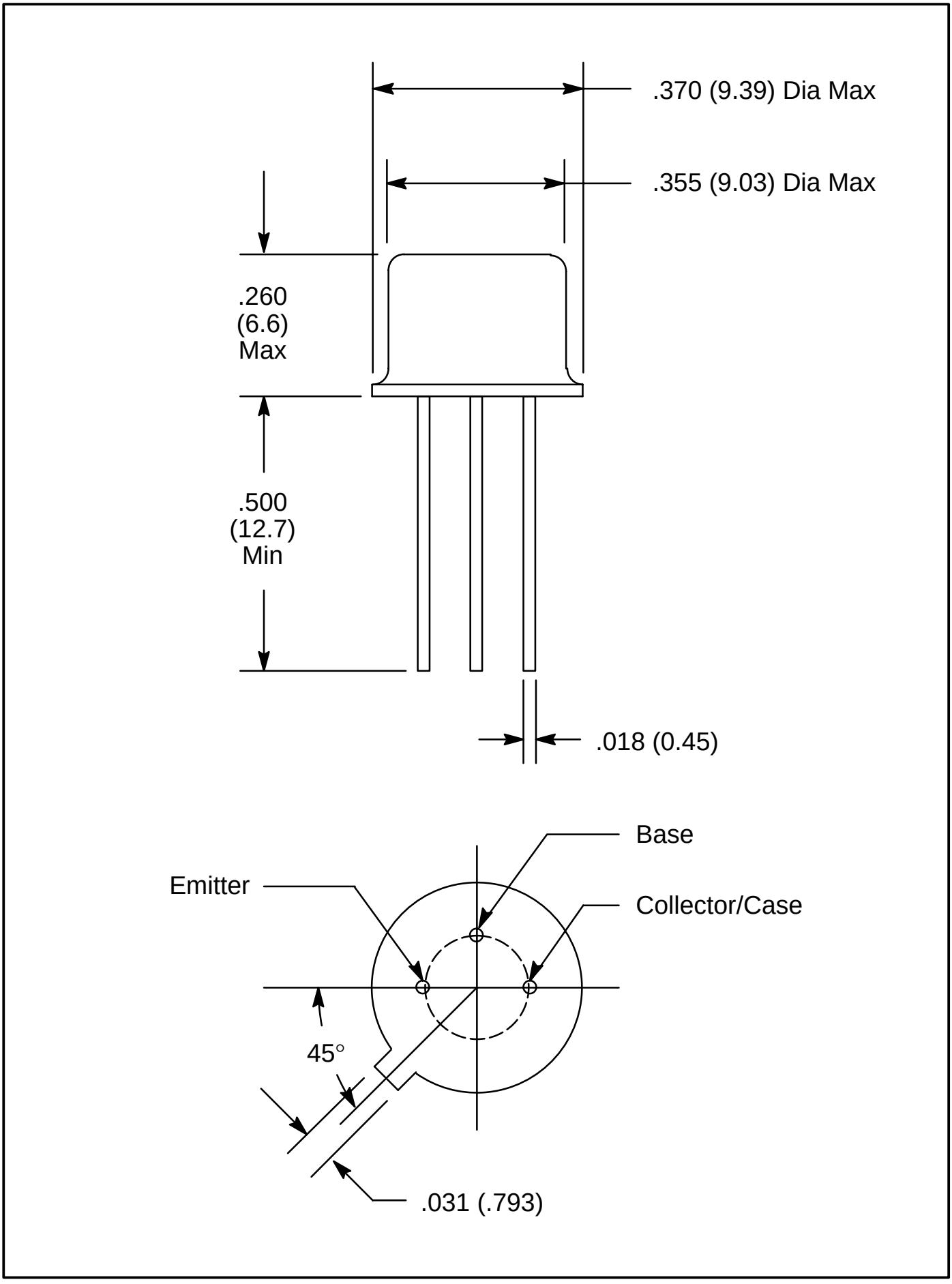
- HF Power Amplifiers, Switchings
- 27MHz, 4W, AM, Citizens Band Transmitter Output Stage

Absolute Maximum Ratings: (T_A = +25°C unless otherwise specified)

Collector–Base Voltage, V_{CBO} 100V
Collector–Emitter Voltage, V_{CEO} 60V
Emitter–Base Voltage, V_{EBO} 6V
Collector Current, I_C 4A
Base Current, I_B 800mA
Collector Power Dissipation (T_C = +25°C), P_C 10W
Operating Junction Temperature, T_J . . . . . +175°C
Storage Temperature Range, T_{stg} . . . . . –65° to +200°C

Electrical Characteristics: (T_A = +25°C unless otherwise specified)

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Collector Cutoff Current	I_{CBO}	V_{CB} = 50V, I_E = 0	–	–	1	µA
Emitter Cutoff curent	I_{EBO}	V_{EB} = 6V, I_C = 0	–	–	2	µA
Collector–Base Voltage	V_{CBO}	I_C = 100µA	100	–	–	V
Collector–Emitter Sustaining Voltage	$V_{CEO(sus)}$	I_C = 10mA	60	–	–	V
Collector–Emitter Saturation Voltage	$V_{CE(sat)}$	I_C = 2A, I_B = 400mA	–	0.3	0.8	V
Base–Emitter Saturation Voltage	$V_{BE(sat)}$	I_C = 2A, I_B = 400mA	–	1.0	1.4	V
DC Current Gain	h_{FE1}	V_{CE} = 2V, I_C = 100mA	27	100	264	
	h_{FE2}	V_{CE} = 2V, I_C = 2A	–	60	–	
Output Capacitance	C_{ob}	V_{CB} = 10V, I_E = 0, f = 1MHz	–	45	60	pF
Collector–Base Time Constant	$C_c \bullet r_{bb'}$	V_{CB} = 10V, I_E = –15mA, f = 31.9MHz	–	35	70	ps
Gain Bandwidth Product	f_T	V_{CB} = 10V, I_E = –100mA	70	140	–	MHz
Power Output	P_O	P_{IN} = 400mW, V_{CC} = 12V	4	6	–	W
Power Gain	P • G	f = 27MHz	10	–	–	dB


.370 (9.39) Dia Max
.355 (9.03) Dia Max
.260
(6.6)
Max
.500
(12.7)
Min
.018 (0.45)
Base
Emitter
Collector/Case
45°
.031 (.793)