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

NTE5640 thru NTE5643
TRIAC, 2.5A

Absolute Maximum Ratings:

Repetitive Peak Off–State Voltage (Gate Open, T_J = +100°C, Note 1), V_{DROM}
- NTE5640 . . . . . 100V
- NTE5641 . . . . . 200V
- NTE5642 . . . . . 400V
- NTE5643 . . . . . 600V

RMS On–State Current (T_C = +75°C, Conduction Angle of 360°), $I_{T(RMS)}$ 2.5A

Peak Surge (Non–Repetitive) On–State Current (One Cycle, at 50Hz or 60Hz), I_{TSM} 30A

Peak Gate–Trigger Current (3μs Max), I_{GTM} 1A

Peak Gate–Power Dissipation ($I_{GT} \le I_{GTM}$ for 3μs Max), P_{GM} 20W

Average Gate–Power Dissipation, $P_{G(AV)}$ 200mW

Fusing Current (For TRIAC Protection, T = 1.25 to 10ms), I^2t . . . . . $3A^2s$

Operating Temperature Range, T_{opr} . . . . . –40° to +100°C

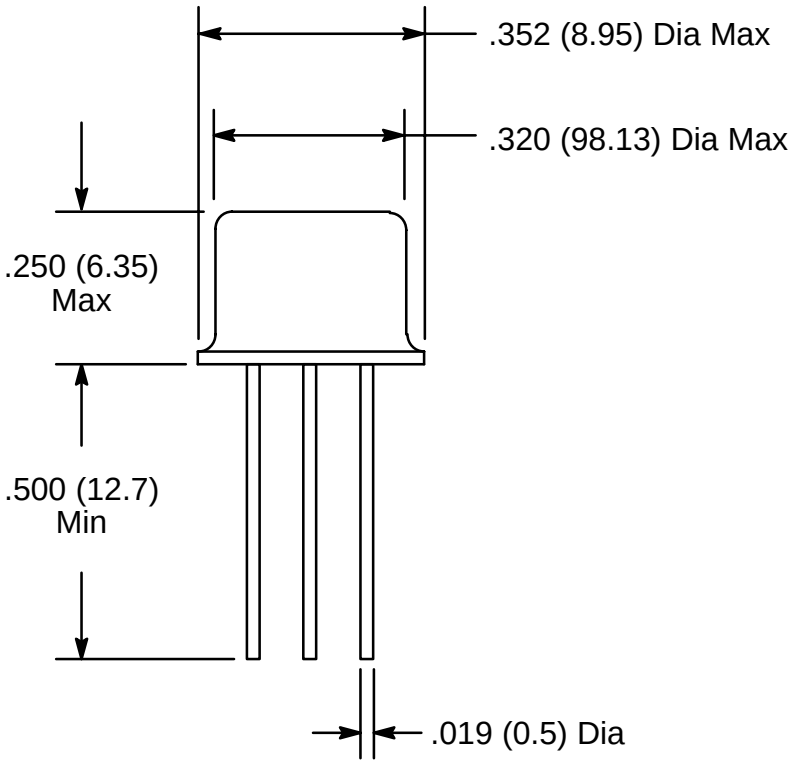
Storage Temperature Range, T_{stg} . . . . . –40° to +150°C

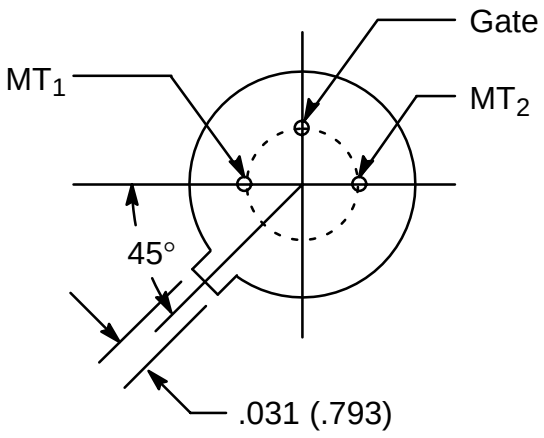
Typical Thermal Resistance, Junction–to–Case, R_{thJC} . . . . . 4°C/W

Note 1. All values apply in either direction.

Electrical Characteristics: (At Maximum Ratings and T_C = +25°C unless otherwise specified)

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Peak Off–State Current	I_{DROM}	V_{DROM} = Max Rating, T_J = +100°C, Gate Open, Note 1	–	–	0.75	mA
Maximum On–State Voltage	V_{TM}	i_T = 5A (Peak), Note 1	–	–	2.2	V
DC Holding Current	I_H	Gate Open	–	–	15	mA
Critical Rate–of–Rise of Off–State Voltage	Critical dv/dt	$v_D = V_{DROM}$, T_C = +100°C, Note 1	–	7	–	V/μs
DC Gate–Trigger Current	I_{GT}	v_D = 6V, R_L = 39Ω, All Quads	–	–	25	mA
DC Gate–Trigger Voltage	V_{GT}	v_D = 6V, R_L = 39Ω	–	–	2.2	V
Gate–Controlled Turn–On Time	t_{gt}	$v_D = V_{DROM}$, I_{GT} = 80mA, t_r = 0.1μs, i_T = 10A (Peak)	–	2.2	–	μs


.352 (8.95) Dia Max
.320 (98.13) Dia Max
.250 (6.35)
Max
.500 (12.7)
Min
.019 (0.5) Dia


Gate
MT1
MT2
45°
.031 (.793)