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

NTE5673 thru NTE5677
TRIAC – 15 Amp

Description:

The NTE5673 through NTE5677 series of meduim power TRIACs are bidirectional triode thyristors which may be switched from off–state to conduction for either polarity od applied voltage with positive or negative gate triggering. These devices are designed for control of AC loads in applications such as lighting, heating, and motor speed control as well as static switching relays.

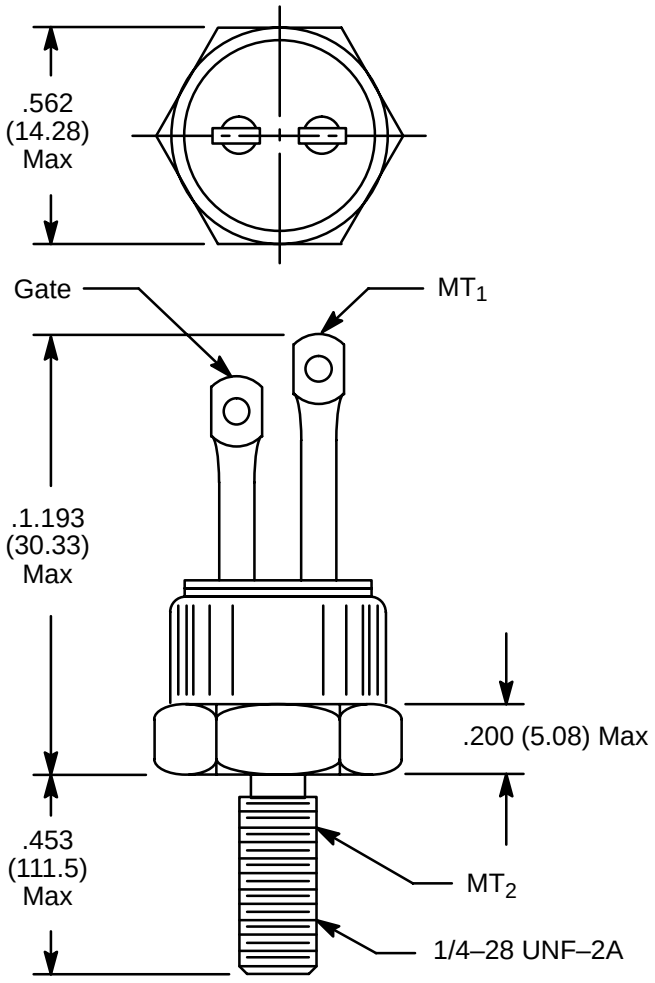
Absolute Maximum Ratings:

Repetitive Peak Off–State Voltage and peak Reverse Voltage (T_J = +100°C), V_{DRM}, V_{RRM}
- NTE5673 . . . . . 200V
- NTE5675 . . . . . 400V
- NTE5676 . . . . . 500V
- NTE5677 . . . . . 600V

On–State Current RMS (T_C = +75°C, 360° Conduction), $I_{T(RMS)}$ 15A
Peak Surge (Non–Repetitive) On–State Current (One Full Cycle, 50 or 60Hz), I_{TSM} 150A
Peak Gate–Power Dissipation ($I_{GT} \le I_{GTM}$ for 3μs Max), P_{GM} 20W
Average Gate–Power Dissipation, $P_{G(AV)}$ 0.5W
Peak Gate–Trigger Current (3μs Max), I_{GTM} 2A
Operating Junction Temperature Range (T_J), T_{opr} . . . . . –40° to +100°C
Storage Temperature Range, T_{stg} . . . . . –40° to +150°C
Thermal Resistance, Junction–to–Case, R_{thJC} . . . . . 1.8°C/W

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

Parameter	Symbol	Min	Typ	Max	Unit
Peak Off–State Current (I_r = 100A Peak)	I_{DROM}	–	–	2	mA
Maximum On–State Voltage (I_r = 100A Peak)	V_T	–	–	2.2	V
DC Gate Trigger Current (Main Terminal Voltage = 24V, R_L = 12Ω)	I_{GT}				mA
MT_2 (+), G (+); MT_2 (–), G (–) Quads I – III		–	–	50	
MT_2 (+), G (–); MT_2 (–), G (+) Quads II – IV		–	–	80	
DC Gate Trigger Voltage (Main Terminal Voltage = 24V, R_L = 12Ω)	V_{GT}	–	–	2.5	V
DC Holding Current (Gate Open)	I_H	–	–	60	mA
Gate Controlled Turn–On Time (V_D = V_{DROM}, I_T = 10A Peak, I_{GT} = 300mA, t_r = 0.1μs)	t_{gt}	–	3.0	–	μs
Critical Rate–of–Rise of Off–State Voltage (V_D = V_{DROM}, T_C = +100°C, Gate Open)	Critical dv/dt	–	40	–	V/μs
Critical Rate–of–Rise of Commutation (V_D = V_{DROM}, I_f = $I_{T(RMS)}$, T_C = +100°C, Gate Open)	Commutating dv/dt	–	5	–	V/μs


.562
(14.28)
Max
Gate
MT1
.1.193
(30.33)
Max
.200 (5.08) Max
.453
(111.5)
Max
MT2
1/4–28 UNF–2A