NTE ELECTRONICS, INC.
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NTE5629
TRIAC – 400V_{RM}, 4Amp

Description:

The NTE5629 TRIAC is a bi–directional triode thyristor in a TO202 type case. This device may be switched from off–state to conduction for either polarity of applied voltage with positive or negative gate–trigger current. The NTE5629 can be driven directly with IC and MOS devices and is designed for control applications in lighting, heating, cooling, and static switching relays.

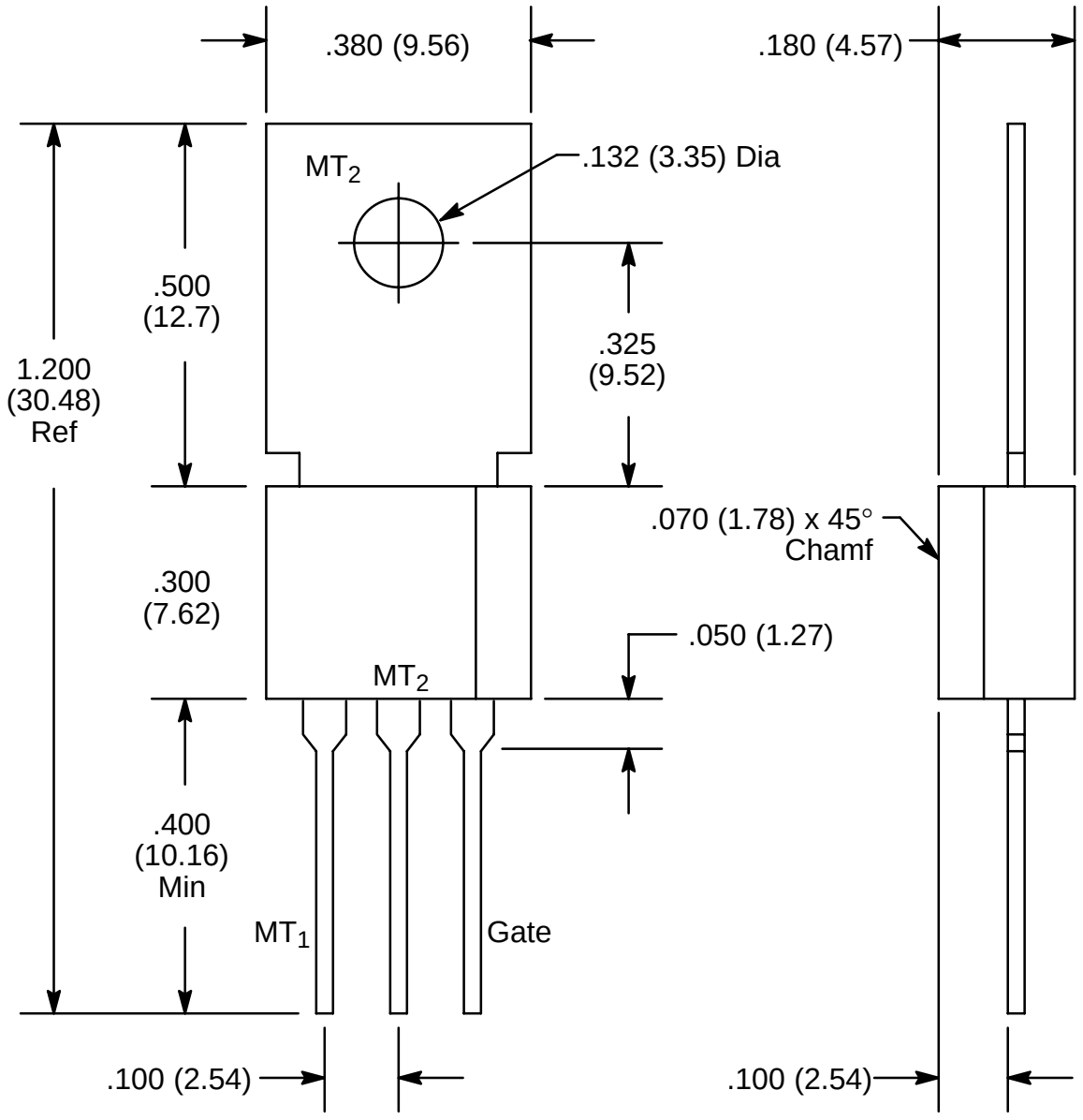
Absolute Maximum Ratings:

Repetitive Peak Off–State Voltage (Gate Open, T_J = +110°C, Note 1), V_{DRM} 400V
RMS On–State Current (T_C = +80°C, Conduction Angle = 360°), $I_{T(RMS)}$ 4A
Non–Repetitive Peak Surge On–State Current (One–Cycle, at 50Hz or 60Hz), I_{TSM} 40A
Peak Gate–Trigger Current (for 3µs Max), I_{GTM} 1.2A
Peak Gate–Power Dissipation ($I_{GT} \le I_{GTM}$), P_{GM} 15W
Average Gate–Power Dissipation, $P_{G(AV)}$ 3W
Operating Temperature Range, T_{opr} . . . . . –40° to +110°C
Storage Temperature Range, T_{stg} . . . . . –40° to +150°C
Thermal Resistance, Junction–to–Case, R_{thJC} . . . . . 4°C/W Typ

Electrical Characteristics: (At Specified Case Temperature)

Peak Off–State Current (Gate Open, T_C = +110°C, V_{DRM} = 400V, Note 1), I_{DRM} . . . . . 0.5mA Max
Maximum On–State Voltage (T_C = +25°C, I_T = 4A, Note 1), V_{TM} . . . . . 1.6V Max
DC Holding Current (Gate Open, T_C = +25°C, Note 1), I_{Hold} . . . . . 5mA Max
Critical Rate–of–Rise of Off–State Voltage, Critical dv/dt
(V_D = 400V, Gate Open, T_C = +110°C, Note 1) 10V/µs
Critical rate–of–Rise of commutation Voltage, Commutating dv/dt
(V_D = 400V, I_T = 4A, Gate Unenergized, T_C = +80°C, Note 1) 1V/µs
DC Gate–Trigger Current (V_D = 12VDC, R_L = 60Ω, T_C = +25°C), I_{GT} . . . . . 3mA Max
(T_2+ Gate +, T_2– Gate –) Quads I and III
(T_2+ Gate –, T_2– Gate +) Quads II and IV
DC Gate–Trigger Voltage (V_D = 12VDC, R_L = 60Ω, T_C = +25°C), V_{GT} . . . . . 2V Max
Gate–Controlled Turn–On Time, T_{gt}
(V_D = 400V, I_{GT} = 80mA, t_R = 0.1µs, I_T = 6A (Peak), T_C = +25°C) 3µs

Note 1. All values apply in either direction.


.380 (9.56)
.180 (4.57)
MT2
.132 (3.35) Dia
.500
(12.7)
.325
(9.52)
1.200
(30.48)
Ref
.070 (1.78) x 45°
Chamf
.300
(7.62)
.050 (1.27)
MT2
.400
(10.16)
Min
MT1
Gate
.100 (2.54)
.100 (2.54)