ELECTRONICS, INC.
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NTE5562, NTE5564, NTE5566

Silicon Controlled Rectifiers (SCR's)

Description:

The NTE5562, NTE5564 and NTE5566 are silicon controlled rectifiers in a TO–48 isolated stud TO–48 type package designed for industrial and consumer applications such as power supplies, battery chargers, temperature, motor, light and welder controls.

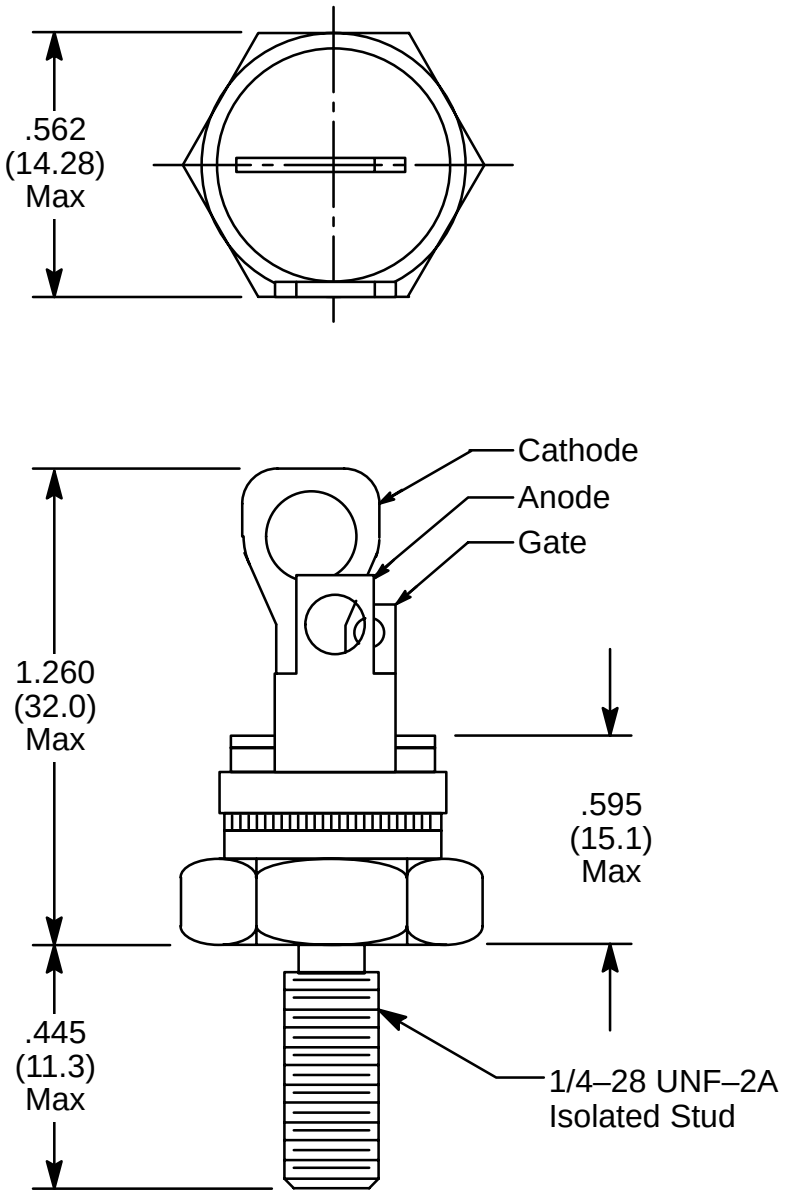
Absolute Maximum Ratings:

Repetitive Peak Off–State Voltage & Reverse Voltage (T_J = +100°C), V_{DRM}, V_{RRM}
- NTE5562 200
- NTE5564 . . . . . 400V
- NTE5566 . . . . . 600V

RMS On–State Current (T_C = +75°C), $I_{T(RMS)}$ 35A
Peak Surge (Non–Repetitive) On–State Current, I_{TSM} 300A
Peak Gate–Trigger Current (3μs Max), I_{GTM} 20
Peak Gate–Power Dissipation (I_{GT} ≤ for 3μs Max), P_{GM} 20W
Average Gate Power Dissipation, $P_{G(AV)}$ 20W
Operating Temperature Range, T_{oper} . . . . . –40° to +150°C
Storage Temperature Range, T_{stg} . . . . . –40° to +150°C
Typical Thermal Resistance, Junction–to–Case, R_{thJC} 1.6/W

Electrical Characteristics: (At Maximum Ratings and Specified Case Temperatures)

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Peak Off–State Current	I_{DRM}, I_{RRM}	T_J = +100°C, Gate Open, V_{DRM} &V_{RRM}	–	–	2.0	mA
Maximum On–State Voltage (Peak)	V_{TM}	T_C = +25°C	–	–	1.6	V
DC Holding Current	I_{HO}	T_C = +25°C, Gate Open	–	–	50	mA
DC Gate Trigger Current	I_{GT}	Anode Voltage = 12Vdc, R_L = 30Ω, T_C =+ 25°C	–	–	30	mA
DC Gate Controlled Turn–On Time	T_{GT}	I_{GT} = 150mA , t_D+t_R	–	2.5	–	μs
Critical Rate of Rise of Off–State Voltage	Critical dv/dt	T_C = +100°C, Gate Open	–	100	–	V/μs


.562
(14.28)
Max
Cathode
Anode
Gate
1.260
(32.0)
Max
.595
(15.1)
Max
.445
(11.3)
Max
1/4–28 UNF–2A
Isolated Stud