ELECTRONICS, INC.
44 FARRAND STREET
BLOOMFIELD, NJ 07003
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NTE5427 thru NTE5429
Silicon Controlled Rectifier (SCR)
7 Amp, TO–39 Type Package

Absolute Maximum Ratings:

Repetitive Peak Reverse Voltage (T_C = +110°C), V_{RRM}
- NTE5427 . . . . . 200V
- NTE5428 . . . . . 400V
- NTE5429 . . . . . 600V

Repetitive Peak Off–State Voltage (T_C = +110°C), V_{DRM}
- NTE5427 . . . . . 200V
- NTE5428 . . . . . 400V
- NTE5429 . . . . . 600V

RMS On–State Current (T_C = +80°C, Conduction Angle of 180°), $I_{T(RMS)}$ 7A

Peak Surge (Non–Repetitive) On–State Current (One Cycle at 50 or 60Hz), I_{TSM} 80A

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

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

Average Gate Power Dissipation, $P_{G(AV)}$ 500mW

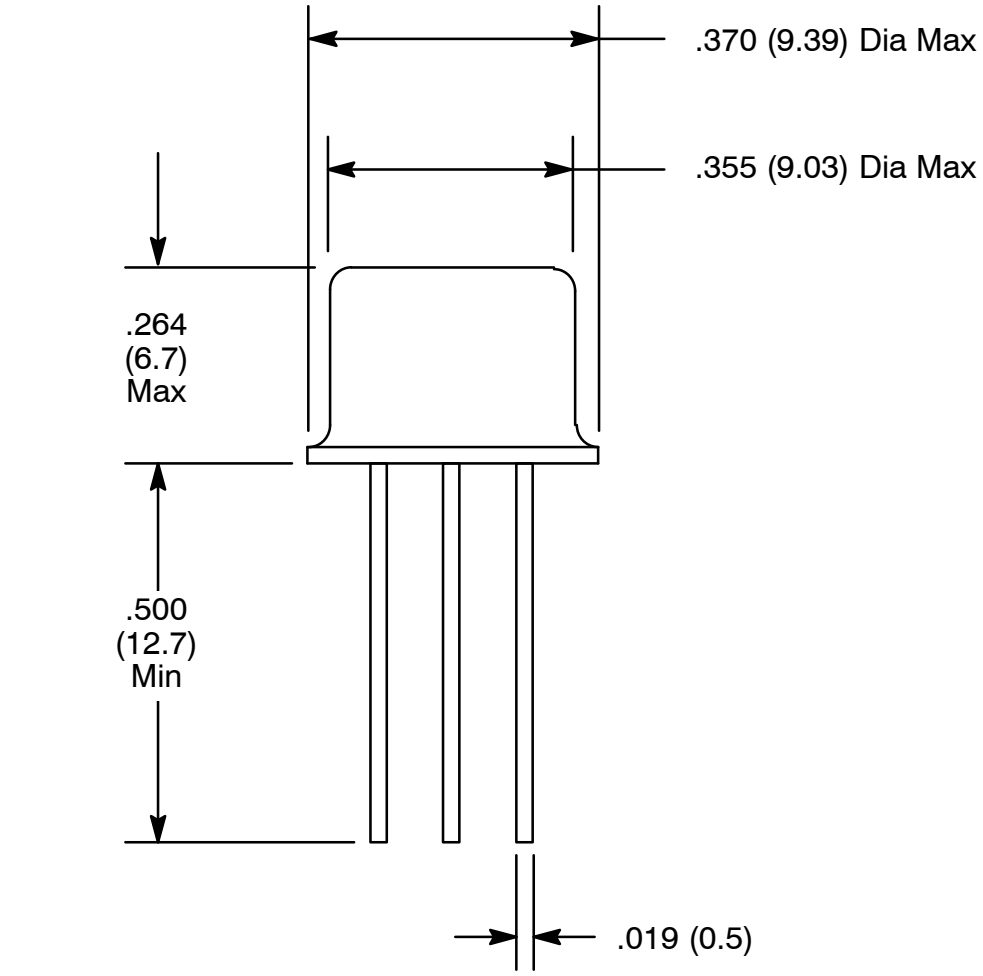
Operating Temperature Range, T_{opr} . . . . . –40° to +110°C

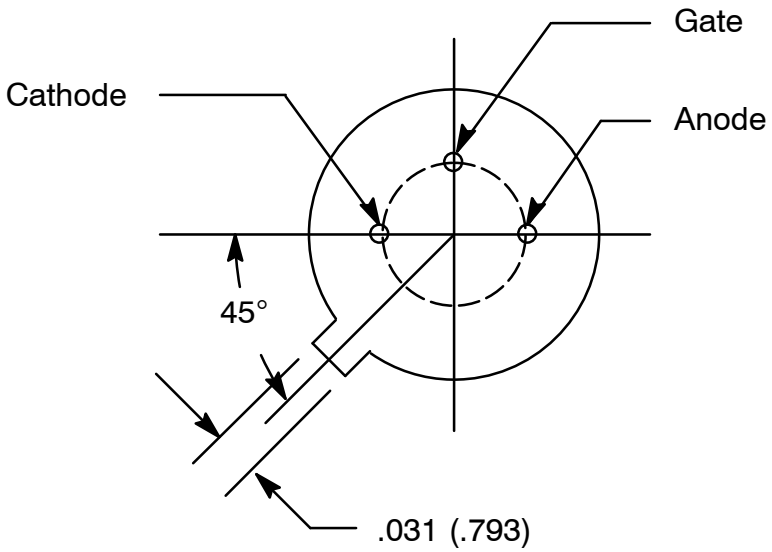
Storage Temperature Range, T_{stg} . . . . . –40° to +150°C

Typical Thermal Resistance, Junction–to–Case, R_{thJC} . . . . . 2.5°C/W

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

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Peak Off–State Current	I_{RRM}	V_{RRM} = Max, V_{DRM} = Max, T_C = +110°C, R_{GK} = 1kΩ	–	–	1	mA
	I_{DRM}		–	–	1	mA
Maximum On–State Voltage	V_{TM}	I_T = 7A	–	–	2	V
DC Holding Current	I_{HOLD}		–	–	50	mA
DC Gate–Trigger Current	I_{GT}	V_D = 6VDC, R_L = 100Ω	–	–	25	mA
DC Gate–Trigger Voltage	V_{GT}	V_D = 6VDC, R_L = 100Ω	–	–	1.5	V
Gate Controlled Turn–On Time	t_{gt}	I_G x 3_{GT}	–	2	–	μs
I^2t for Fusing Reference	I^2t	For SCR Protection	–	–	2.6	A^2sec
Critical Rate of Off–State Voltage	dv/dt (critical)	Gate Open, T_C = +100°C	–	100	–	V/μs


.370 (9.39) Dia Max
.355 (9.03) Dia Max
.264
(6.7)
Max
.500
(12.7)
Min
.019 (0.5)


Gate
Cathode
Anode
45°
.031 (.793)