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NTE5426
Silicon Controlled Rectifier (SCR)
Sensitive Gate, TO220 Isolated

Description:

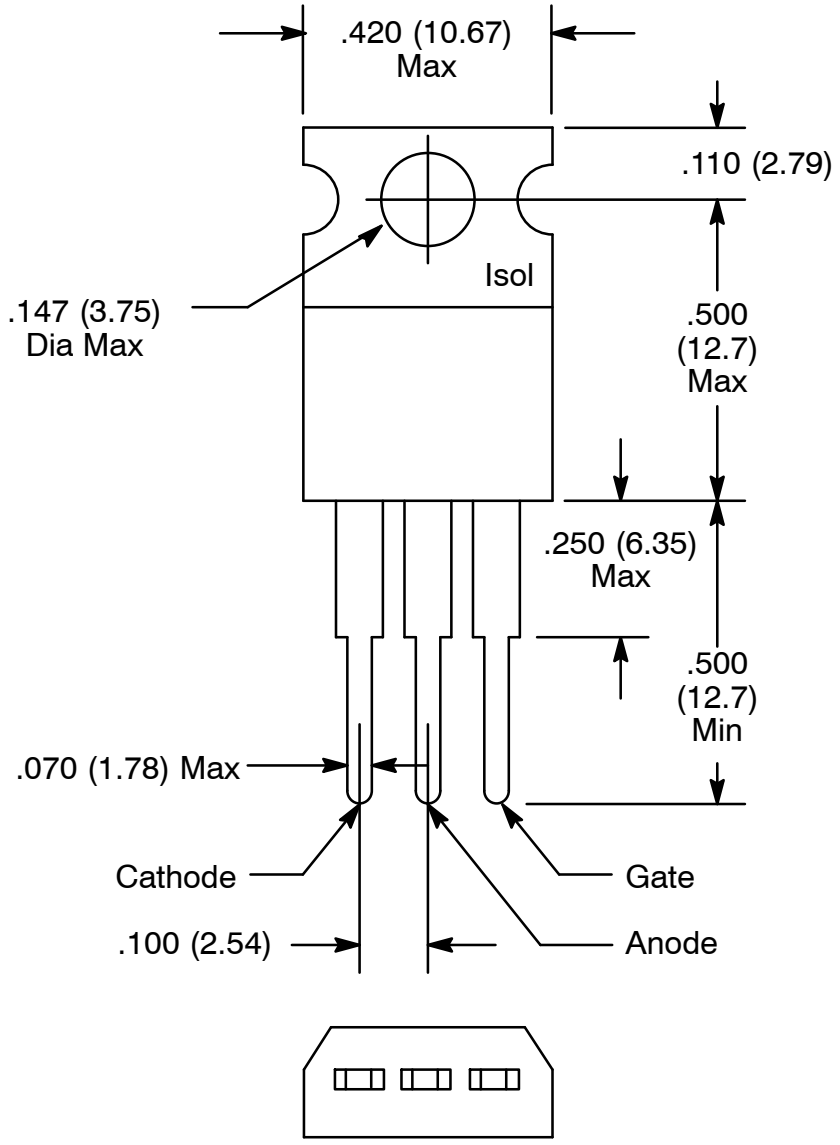
The NTE5426 is silicon controlled rectifier (SCR) in an isolated tab TO220 type package. This device may be switched from off–state to conduction by a current pulse applied to the gate terminal and is designed for control applications in lighting, heating, cooling, and static switching relays.

Absolute Maximum Ratings:

Repetitive Peak Off–State Voltage (Gate Open, T_C = +110°C), V_{DRM} 400V
Repetitive Peak Reverse Voltage (Gate Open, T_C = +110°C), V_{RRM} 400V
RMS On–State Current (T_C = +80°C, 180° Conduction Angle), $I_{T(RMS)}$ 10A
Peak Surge (Non–Repetitive) On–State Current (One Cycle, 50 or 60Hz), I_{TSM} 80A
Peak Gate–Trigger Current (3μs max), I_{GTM} 1A
Peak Gate–Power Dissipation (I_{GT} = I_{GTM}), P_{GM} 16W
Average Gate Power Dissipation, $P_{G(AV)}$ 500mW
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} . . . . . 3.0°C/W

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

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Peak Off–State Current	I_{DRM}, I_{RRM}	Rated V_{DRM} or V_{RRM}, T_C = +110°C, RG – K = 1kΩ	–	–	0.1	mA
Maximum On–State Voltage	V_{TM}	I_T = Rated Amps	–	–	2.0	V
Gate Trigger Current, Continuous DC	I_{GT}	Anode Voltage = 12V, R_L = 60Ω	–	–	200	μA
Gate Trigger Voltage, Continuous DC	V_{GT}	Anode Voltage = 12V, R_L = 60Ω	–	–	0.8	V
DC Holding Current	I_H	Gate Open, RG – K = 1kΩ	–	–	3.0	mA
Turn–On Time	t_{gt}	(t_d + t_r) I_{GT} = 150mA	–	–	2.5	μs
Critical Rate of Rise of Off–State Voltage	critical dv/dt	Gate Open, T_C = +110°C, RG – K = 1kΩ	–	8	–	V/μs


.420 (10.67)
Max
.110 (2.79)
Isol
.147 (3.75)
Dia Max
.500
(12.7)
Max
.250 (6.35)
Max
.500
(12.7)
Min
.070 (1.78) Max
Cathode
Gate
.100 (2.54)
Anode