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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, $T_C = +110^\circ\text{C}$), V_{DRM}	400V
Repetitive Peak Reverse Voltage (Gate Open, $T_C = +110^\circ\text{C}$), V_{RRM}	400V
RMS On-State Current ($T_C = +80^\circ\text{C}$, 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 (3 μs 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: ($T_C = +25^\circ\text{C}$ 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} , $T_C = +110^\circ\text{C}$, $R_G - K = 1\text{k}\Omega$	-	-	0.1	mA
Maximum On-State Voltage	V_{TM}	$I_T = \text{Rated Amps}$	-	-	2.0	V
Gate Trigger Current, Continuous DC	I_{GT}	Anode Voltage = 12V, $R_L = 60\Omega$	-	-	200	μA
Gate Trigger Voltage, Continuous DC	V_{GT}	Anode Voltage = 12V, $R_L = 60\Omega$	-	-	0.8	V
DC Holding Current	I_H	Gate Open, $R_G - K = 1\text{k}\Omega$	-	-	3.0	mA
Turn-On Time	t_{gt}	$(t_d + t_r)$ $I_{GT} = 150\text{mA}$	-	-	2.5	μs
Critical Rate of Rise of Off-State Voltage	critical dv/dt	Gate Open, $T_C = +110^\circ\text{C}$, $R_G - K = 1\text{k}\Omega$	-	8	-	V/ μs

