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NTE5427 thru NTE5429 Silicon Controlled Rectifier (SCR) 7 Amp, TO-39 Type Package

Absolute Maximum Ratings:

| | |
|--|-------------------------------------|
| Repetitive Peak Reverse Voltage ($T_C = +110^\circ\text{C}$), V_{RRM} | |
| NTE5427 | 200V |
| NTE5428 | 400V |
| NTE5429 | 600V |
| Repetitive Peak Off-State Voltage ($T_C = +110^\circ\text{C}$), V_{DRM} | |
| NTE5427 | 200V |
| NTE5428 | 400V |
| NTE5429 | 600V |
| RMS On-State Current ($T_C = +80^\circ\text{C}$, 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 ($3\mu\text{s}$ Max), I_{GTM} | |
| | 1A |
| Peak Gate-Power Dissipation ($I_{GT} \leq I_{GTM}$), P_{GM} | |
| | 20W |
| Average Gate Power Dissipation, $P_{G(AV)}$ | |
| | 500mW |
| Operating Temperature Range, T_{opr} | |
| | -40° to $+110^\circ\text{C}$ |
| Storage Temperature Range, T_{stg} | |
| | -40° to $+150^\circ\text{C}$ |
| Typical Thermal Resistance, Junction-to-Case, R_{thJC} | |
| | 2.5°C/W |

Electrical Characteristics: ($T_C = +25^\circ\text{C}$ unless otherwise specified)

| Parameter | Symbol | Test Conditions | Min | Typ | Max | Unit |
|------------------------------------|-----------------------|--|-----|-----|-----|------------------------|
| Peak Off-State Current | I_{RRM} | $V_{RRM} = \text{Max}$, $V_{DRM} = \text{Max}$, $T_C = +110^\circ\text{C}$, $R_{GK} = 1\text{k}\Omega$ | - | - | 1 | mA |
| | I_{DRM} | | - | - | 1 | mA |
| Maximum On-State Voltage | V_{TM} | $I_T = 7\text{A}$ | - | - | 2 | V |
| DC Holding Current | I_{HOLD} | | - | - | 50 | mA |
| DC Gate-Trigger Current | I_{GT} | $V_D = 6\text{VDC}$, $R_L = 100\Omega$ | - | - | 25 | mA |
| DC Gate-Trigger Voltage | V_{GT} | $V_D = 6\text{VDC}$, $R_L = 100\Omega$ | - | - | 1.5 | V |
| Gate Controlled Turn-On Time | t_{gt} | $I_G \times 3_{GT}$ | - | 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, $T_C = +100^\circ\text{C}$ | - | 100 | - | $\text{V}/\mu\text{s}$ |

