



**ELECTRONICS, INC.**  
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## **NTE5575, NTE5577, NTE5579** **Silicon Controlled Rectifier (SCR)** **125 Amp**

### **Electrical Characteristics:**

Repetitive Peak Forward Blocking Voltage, $V_{DRM}$	
NTE5575 .....	200V
NTE5577 .....	600V
NTE5579 .....	1200V
Repetitive Peak Reverse Voltage, $V_{RRM}$	
NTE5575 .....	200V
NTE5577 .....	600V
NTE5579 .....	1200V
Non-Repetitive Transient Peak Reverse Voltage, $V_{RSM}$	
NTE5575 .....	300V
NTE5577 .....	700V
NTE5579 .....	1300V
Maximum RMS On-State Current, $I_{T(RMS)}$ .....	125A
Maximum Average On-State Current (+180° Conduction, $T_C = +80^\circ\text{C}$ ), $I_{T(AV)}$ .....	70A
Maximum Peak One-Cycle, Non-Repetitive Surge Current, $I_{TSM}$	
50Hz .....	1400A
60Hz .....	1500A
Maximum $I^2t$ for Fusing (1.5ms), $I^2t$ .....	7000A <sup>2</sup> sec
Peak On-State Voltage ( $T_C = +25^\circ\text{C}$ , +180° Conduction, Rated $I_{T(AV)}$ ), $V_{TM}$ .....	2V
Maximum Thermal Resistance, DC, Junction to Case, $R_{\theta JC}$ .....	0.3°C/W
Typical Turn-Off Time ( $T_J = +125^\circ\text{C}$ ), $t_q$ .....	100μs
Rate-of-Rise of Turned-On Current, $di/dt$ .....	200A/μs
Operating Junction Temperature Range, $T_J$ .....	-40° to +125°C
Maximum Critical Rate-of-Rise of Off-State Voltage, $dv/dt$ (Exponential @ $T_J = +125^\circ\text{C}$ ) .....	200V/μs
Maximum Required Gate Trigger Current, $I_{GT}$	
$T_J = -40^\circ\text{C}$ .....	200mA
$T_J = -25^\circ\text{C}$ .....	125mA
Maximum Required Gate Trigger Voltage ( $T_J = +25^\circ\text{C}$ ), $V_{GT}$ .....	200mV
Maximum Forward Voltage Drop ( $I_{TM} = 500A$ , $T_J = +25^\circ\text{C}$ ), $V_F$ .....	1.8V

