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## NTE5575, NTE5577, NTE5579 Silicon Controlled Rectifier (SCR) 125 Amp, TO83

### 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, $T_C = +80^\circ C$ ), $I_{T(AV)}$ .....	
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 ( $T_C = +25^\circ C$ , +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 ( $T_J = +125^\circ C$ ), $t_q$ .....	
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 @ $T_J = +125^\circ C$ ) .....	
200V/µs	
Maximum Required Gate Trigger Current, $I_{GT}$	
$T_J = -40^\circ C$ .....	200mA
$T_J = -25^\circ C$ .....	125mA
Maximum Required Gate Trigger Voltage ( $T_J = +25^\circ C$ ), $V_{GT}$ .....	
200mV	
Maximum Forward Voltage Drop ( $I_{TM} = 500A$ , $T_J = +25^\circ C$ ), $V_F$ .....	
1.8V	

