



ELECTRONICS, INC.
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NTE5517 thru NTE5519 Silicon Controlled Rectifier (SCR) 35 Amp, 1/2" Press Fit

Absolute Maximum Ratings:

Repetitive Peak Off-State Voltage ($T_J = +100^\circ\text{C}$), V_{DRM}	
NTE5517	200V
NTE5518	400V
NTE5519	600V
Repetitive Peak Reverse Voltage ($T_J = +100^\circ\text{C}$), V_{RRM}	
NTE5517	200V
NTE5518	400V
NTE5519	600V
RMS On-State Current ($T_C = +75^\circ\text{C}$), $I_{T(RMS)}$	35A
Peak Surge (Non-Repetitive) On-State Current (One Cycle, 50Hz or 60Hz), I_{TSM}	350A
Peak Gate-Trigger Current (3 μs Max), I_{GTM}	20A
Peak Gate-Power Dissipation ($I_{GT} \leq I_{GTM}$ for 3 μs Max), P_{GM}	20W
Average Gate-Power Dissipation, $P_{G(AV)}$	0.5W
Operating Temperature Range, T_{opr}	-40° to +150°C
Storage Temperature Range, T_{stg}	-40° to +100°C
Typical Thermal Resistance, Junction-to-Case, R_{thJC}	0.9°C/W

Electrical Characteristics: (At Maximum Ratings and Specified Case Temperatures)

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Peak Off-State Current	I_{DRM} , I_{RRM}	$T_J = +100^\circ\text{C}$, Gate Open, V_{DRM} and $V_{RRM} = \text{Max. Rating}$	-	-	2.0	mA
Maximum On-State Voltage (Peak)	V_{TM}	$T_C = +25^\circ\text{C}$	-	-	1.6	V
Peak On-State Current	I_{TM}		-	-	70	A
DC Holding Current	I_H	$T_C = +25^\circ\text{C}$, Gate Open	-	-	50	mA
DC Gate-Trigger Current	I_{GT}	Anode Voltage = 12V, $R_L = 30\Omega$, $T_C = +25^\circ\text{C}$	-	-	25	mA
DC Gate-Trigger Voltage	V_{GT}	Anode Voltage = 12V, $R_L = 30\Omega$, $T_C = +25^\circ\text{C}$	-	-	2.0	V
Gate Controlled 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	$T_C = +100^\circ\text{C}$, Gate Open	-	100	-	V/ μs

