



ELECTRONICS, INC.
 44 FARRAND STREET
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NTE5427 thru NTE5429 Silicon Controlled Rectifier (SCR) 7 Amp

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	-	$\text{V}/\mu\text{s}$

