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## NTE5562, NTE5564, NTE5566

### Silicon Controlled Rectifiers (SCR)

### 35 Amp, TO48 Isolated Stud

**Description:**

The NTE5562, NTE5564 and NTE5566 are silicon controlled rectifiers in a TO-48 isolated stud TO-48 type package designed for industrial and consumer applications such as power supplies, battery chargers, temperature, motor, light and welder controls.

**Absolute Maximum Ratings:**

Repetitive Peak Off-State Voltage & Reverse Voltage ( $T_J = +100^\circ\text{C}$ ), $V_{DRM}$ , $V_{RRM}$	
NTE5562 .....	200
NTE5564 .....	400V
NTE5566 .....	600V
RMS On-State Current ( $T_C = +75^\circ\text{C}$ ), $I_{T(RMS)}$ .....	
	35A
Peak Surge (Non-Repetitive) On-State Current, $I_{TSM}$ .....	
	300A
Peak Gate-Trigger Current (3 $\mu\text{s}$ Max), $I_{GTM}$ .....	
	20
Peak Gate-Power Dissipation ( $I_{GT} \leq$ for 3 $\mu\text{s}$ Max), $P_{GM}$ .....	
	20W
Average Gate Power Dissipation, $P_{G(AV)}$ .....	
	20W
Operating Temperature Range, $T_{oper}$ .....	
	-40° to +150°C
Storage Temperature Range, $T_{stg}$ .....	
	-40° to +150°C
Typical Thermal Resistance, Junction-to-Case, $R_{thJC}$ .....	
	1.6/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, $V_{DRM}$ & $V_{RRM}$	-	-	2.0	mA
Maximum On-State Voltage (Peak)	$V_{TM}$	$T_C = +25^\circ\text{C}$	-	-	1.6	V
DC Holding Current	$I_{HO}$	$T_C = +25^\circ\text{C}$ , Gate Open	-	-	50	mA
DC Gate Trigger Current	$I_{GT}$	Anode Voltage = 12Vdc, $R_L = 30\Omega$ , $T_C = +25^\circ\text{C}$	-	-	30	mA
DC Gate Controlled Turn-On Time	$T_{GT}$	$I_{GT} = 150\text{mA}$ , $t_D + t_R$	-	2.5	-	$\mu\text{s}$
Critical Rate of Rise of Off-State Voltage	Critical dv/dt	$T_C = +100^\circ\text{C}$ , Gate Open	-	100	-	V/ $\mu\text{s}$

