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NTE5562, NTE5564, NTE5566 Silicon Controlled Rectifiers (SCR's)

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 μs Max), I_{GTM}	20
Peak Gate-Power Dissipation ($I_{GT} \leq$ for 3 μs 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	-	μs
Critical Rate of Rise of Off-State Voltage	Critical dv/dt	$T_C = +100^\circ\text{C}$, Gate Open	-	100	-	V/ μs

