



**THE DATASHEET OF  
NTE5609**





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## NTE5608 thru NTE5610 TRIAC 8 Amp TO-220 Type Package

**Description:**

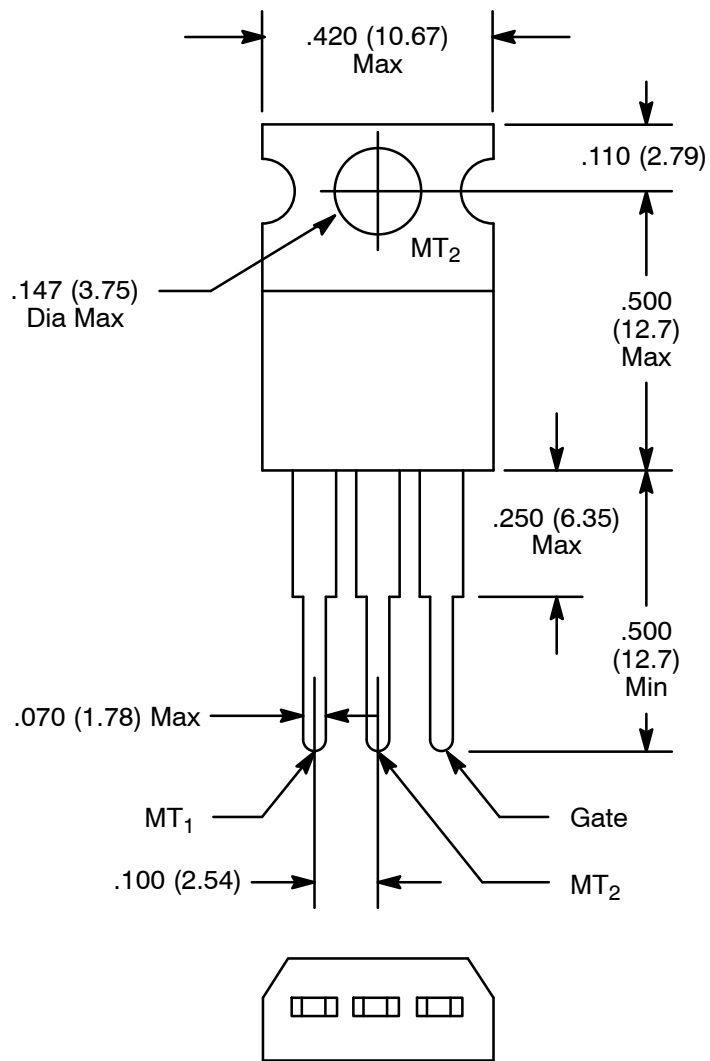
The NTE5608 through NTE5610 series of TRIACs in a TO-220 type package are suitable for general purpose AC switching applications such as static relays, heating regulation, and induction motor starting circuits or for phase control operation in light dimmers and motor speed controllers.

**Absolute Maximum Ratings:** ( $T_A = +25^\circ\text{C}$  unless otherwise specified)

Repetitive Peak Off-State Voltage, $V_{DRM}$ , $V_{RRM}$	
NTE5608 .....	400V
NTE5609 .....	600V
NTE5610 .....	800V
On-State Current (Full Sin Wave, $T_J = +110^\circ\text{C}$ ), $I_{T(RMS)}$ .....	
	8A
Non-Repetitive Peak On-State Current ( $t_p = 20\text{ms}$ ), $I_{TSM}$ .....	
	80A
Operating Junction Temperature Range, $T_J$ .....	
	$-40^\circ$ to $+125^\circ\text{C}$
Storage Temperature Range, $T_{stg}$ .....	
	$-40^\circ$ to $+125^\circ\text{C}$
Thermal Resistance, Junction-to-Case, $R_{thJC}$ .....	
	$1.6^\circ\text{C/W}$
Thermal Resistance, Junction-to-Ambient, $R_{thJA}$ .....	
	$60^\circ\text{C/W}$

**Electrical Characteristics:** ( $T_A = +25^\circ\text{C}$  unless otherwise specified)


Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit	
Repetitive Peak Reverse Current	$I_{RRM}$	$V_R = V_{RRM}$		-	-	0.005	mA
			$T_J = +125^\circ\text{C}$	-	-	1	mA
Repetitive Peak Off-State Current	$I_{DRM}$	$V_R = V_{RRM}$		-	-	0.005	mA
			$T_J = +125^\circ\text{C}$	-	-	1	mA
Gate Trigger Current I, II, III	$I_{GT}$	$V_D = 12\text{V}$ , $R_L = 33\Omega$		-	-	10	mA
			IV	-	-	25	mA
Holding Current	$I_H$	$I_{GT} = 0.5\text{A}$ , Gate Open	-	-	50	mA	
Gate Trigger Voltage	$V_{GT}$	$V_D = 12\text{V}$ , $R_L = 33\Omega$ , All Quadrants	-	-	1.3	V	
On-State Voltage	$V_{TM}$	$I_T = 11\text{A}$ , $t_p = 380\mu\text{s}$	-	-	1.55	V	



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