



ELECTRONICS, INC.
 44 FARRAND STREET
 BLOOMFIELD, NJ 07003
 (973) 748-5089
<http://www.nteinc.com>

NTE56014 TRIAC, 25 Amp TO3 Isolated Flange

Absolute Maximum Ratings and Electrical Characteristics:

Peak Repetitive Off-State Voltage, (Gate Open, $T_J = +110^\circ\text{C}$, Note 1), V_{DRM}	400V
RMS On-State Current ($T_C = +80^\circ\text{C}$, Conduction Angle of 360°), $I_T(\text{rms})$	25A
Peak Surge (Non-Repetitive) On-State Current (One Cycle, 50Hz or 60Hz), I_{TSM}	250A
Peak Gate Trigger Current (3 μs Max), I_{GTM}	4A
Peak Gate Power Dissipation ($I_{\text{GT}} \leq I_{\text{GTM}}$), P_{GM}	40W
Average Gate Power Dissipation, $P_{\text{G(AV)}}$	0.8W
Operating Junction Temperature Range, T_J	-40° to +110°C
Storage Temperature Range, T_{stg}	-40° to +150°C
Typical Thermal Resistance, Junction-to-Case, R_{thJC}	1.3°C/W

Note 1. All values apply in either direction.

Electrical Characteristics:

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Peak Off-State Current	I_{DRM}	$V_{\text{DRM}} = 400\text{V}$, $T_C = +110^\circ\text{C}$, Gate Open, Note 1	-	-	1	mA
Maximum On-State Voltage	V_{TM}	$I_T = 25\text{A}$, $T_C = +25^\circ\text{C}$, Note 1	-	-	1.8	V
DC Holding Current	I_{HO}	$T_C = +25^\circ\text{C}$, Gate Open, Note 1	-	-	80	mA
Critical Rate-of-Rise of Off-State Voltage	Critical dv/dt	$V_D = 400\text{V}$, $T_C = +110^\circ\text{C}$, Gate Open, Note 1	-	200	-	V/ μs
Critical Rate-of-Rise of Commutating Voltage	Commutating dv/dt	$V_D = 400\text{V}$, $I_T = 25\text{A}$, $T_C = +80^\circ\text{C}$, Gate Unenergized, Note 1	-	5	-	V/ μs
DC Gate Trigger Current MT2 (+) G (+), MT2 (-) G (-)	I_{GT}	$V_D = 12\text{V}$, $R_L = 60\Omega$, $T_C = +25^\circ\text{C}$	-	-	100	mA
MT2 (+) G (-), MT2 (-) G (+)			-	-	150	mA
DC Gate Trigger Voltage	V_{GT}	$V_D = 12\text{V}$, $R_L = 30\Omega$, $T_C = +25^\circ\text{C}$	-	-	2.5	V
Gate Controlled Turn-On Time	t_{gt}	$V_D = 400\text{V}$, $I_{\text{GT}} = 200\text{mA}$, $t_r = 0.1\mu\text{s}$, $I_T = 10\text{A Peak}$, $T_C = +25^\circ\text{C}$	-	3	-	μs

Note 1. All values apply in either direction.

