

T1610H-8E 16A TRIAC

Rev.A.1.1

DESCRIPTION:

The T1610H-8E triac is suitable for general purpose AC switching. It can be used as an ON/OFF function in applications such as heating regulation, induction motor starting circuits, for phase control operation in light dimmers, motor speed controllers. Compared to traditional triacs, T1610H-8E provides a very high switching capability up to junction temperatures of 150°C. It can be driven directly through the MCU I/O port. Package TO-263 is RoHS compliant.

MAIN FEATURES

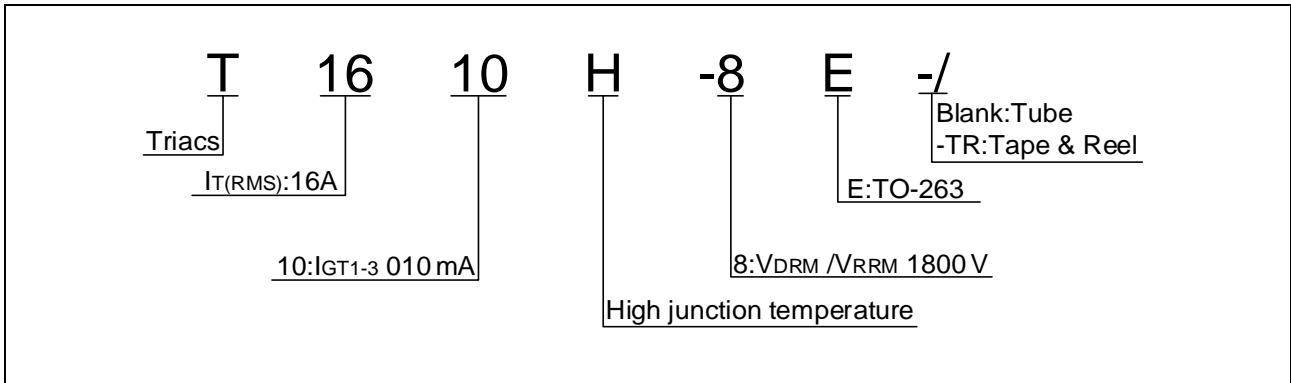
Symbol	Value	Unit
$I_{T(RMS)}$	16	A
V_{DRM}/V_{RRM}	800	V

$I_{GT} / /$

ABSOLUTE MAXIMUM RATINGS

Parameter	Symbol	Value	Unit
Storage junction temperature range	T_{stg}	-40-150	
Operating junction temperature range	T_j	-40-150	
Repetitive peak off-state voltage ($T_j=25^\circ\text{C}$)	V_{DRM}	800	V
Repetitive peak reverse voltage ($T_j=25^\circ\text{C}$)	V_{RRM}	800	V
RMS on-state current ($T_c 0125^\circ\text{C}$)	$I_{T(RMS)}$	16	A
Non repetitive surge peak on-state current (full cycle, $t_p=20\text{ms}$, $T_j=25^\circ\text{C}$)	I_{TSM}	160	A
Non repetitive surge peak on-state current (full cycle, $t_p=16.6\text{ms}$, $T_j=25^\circ\text{C}$)		176	
I^2t value for fusing ($t_p=10\text{ms}$, $T_j=25^\circ\text{C}$)	I^2t	128	A^2s
Critical rate of rise of on-state current ($I_G=2 \times I_{GT}$, $f=100\text{Hz}$, $T_j=150^\circ\text{C}$)	di/dt	100	A/s
Peak gate current ($t_p=20\text{ }\mu\text{s}$, $T_j=150^\circ\text{C}$)	I_{GM}	4	A
Average gate power dissipation ($T_j=150^\circ\text{C}$)	$P_{G(AV)}$	1	W

ORDERING INFORMATION



MARKING

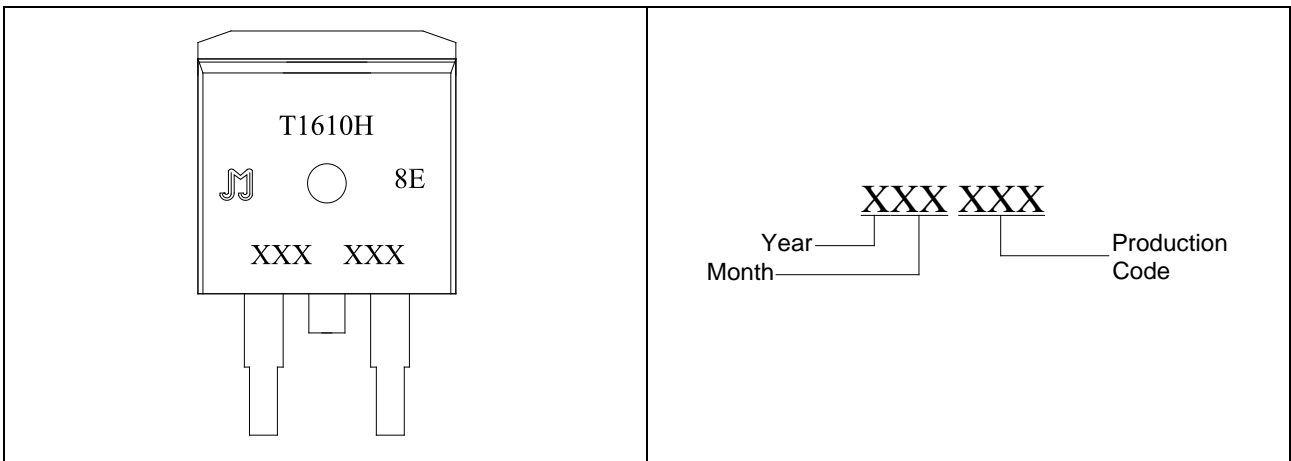


FIG.1: Maximum power dissipation versus RMS on-state current



FIG.2: RMS on-state current versus case temperature 125 -0246810121416180255075100125150I

FIG.7: Relative variations of gate trigger current, holding current and latching current versus junction temperature

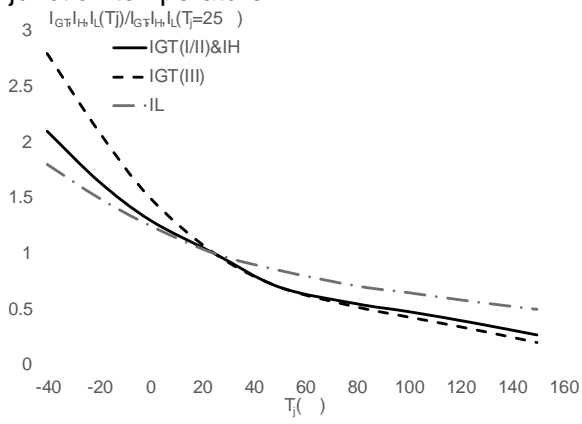
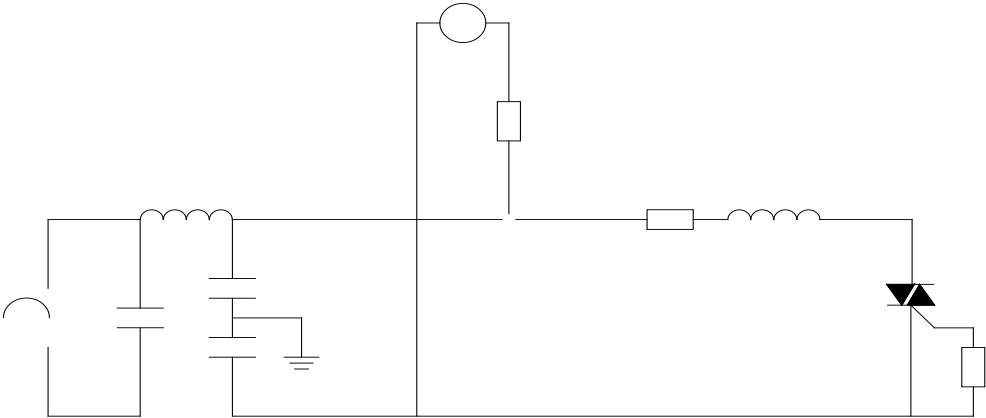


FIG.8 ÖTest circuit for inductive and resistive loads to IEC-61000-4-5 standards



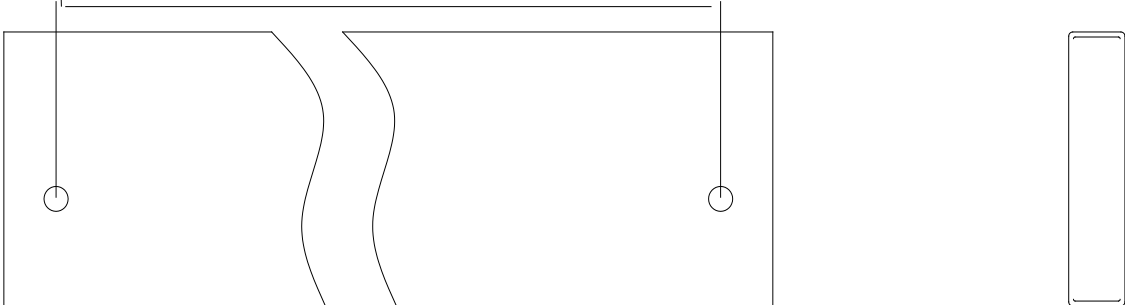
ORDERING INFORMATION

Order code	Voltage V_{DRM}/V_{RRM} (V)	IGT(mA)	Package	Base qty. (pcs)	Delivery mode
		- -			
T1610H-8E	800	10	TO-263	50	Tube
T1610H-8E-TR				800	Tape & Reel

Document Revision History

Date	Revision	Changes
Apr.10, 2023	A.1.0	Last updated
Oct.17, 2025	A.1.1	Revise PACKAGE MECHANICAL DATA

DELIVERY MODE



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