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

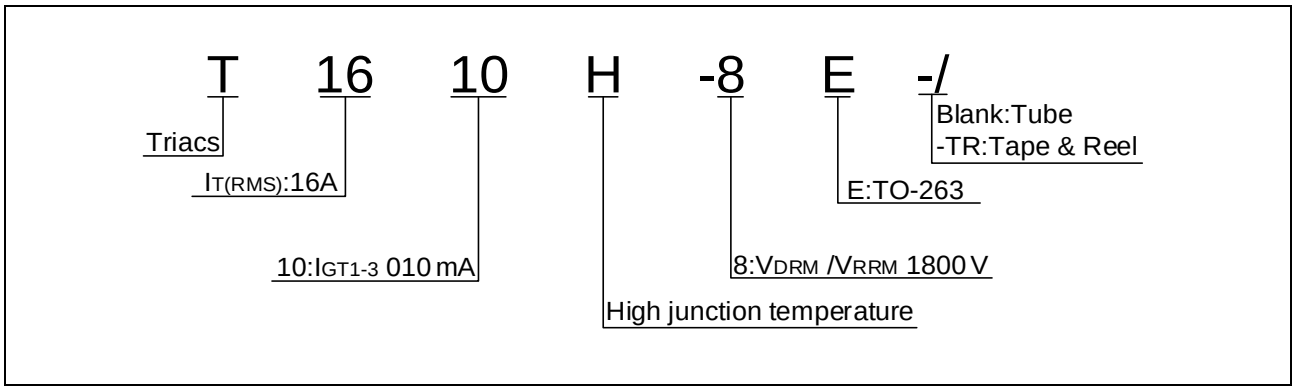
Symbol	Value	Unit
$I_{T(RMS)}$	16	A
V_{DRM} /V_{RRM}	800	V

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)	V_{DRM}	800	V
Repetitive peak reverse voltage (T_j=25)	V_{RRM}	800	V
RMS on-state current (T_C 0125)	$I_{T(RMS)}$	16	A
Non repetitive surge peak on-state current (full cycle , t_p=20ms , T_j=25)	I_{TSM}	160	A
Non repetitive surge peak on-state current (full cycle , t_p=16.6ms , T_j=25)		176	
I^2t value for fusing (t_p=10ms , T_j=25)	I^2t	128	A^2s
Critical rate of rise of on-state current (I_G=2× I_{GT} , f=100Hz , T_j=150)	dI/dt	100	A s
Peak gate current (t_p=20 s , T_j=150)	I_{GM}	4	A
Average gate power dissipation (T_j=150)	$P_{G(AV)}$	1	W

ORDERING INFORMATION



MARKING

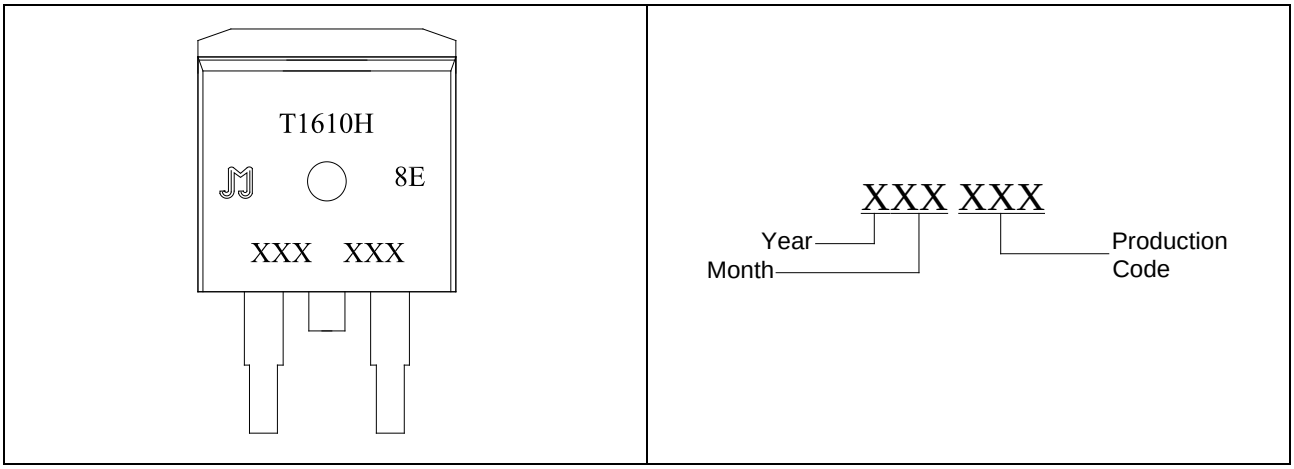


FIG.1: Maximum power dissipation versus RMS on-state current

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

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

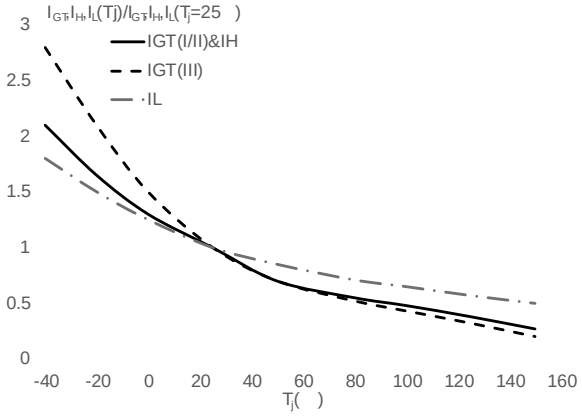
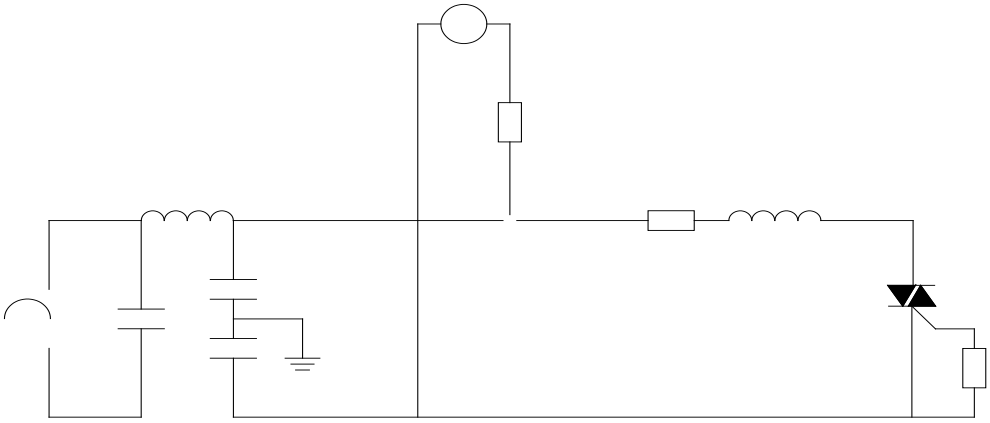


FIG.8 ÖTest circuit for inductive and resistive loads to IEC-61000-4-5 standards



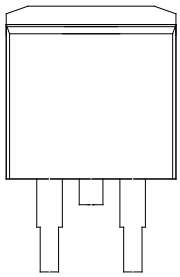
ORDERING INFORMATION

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

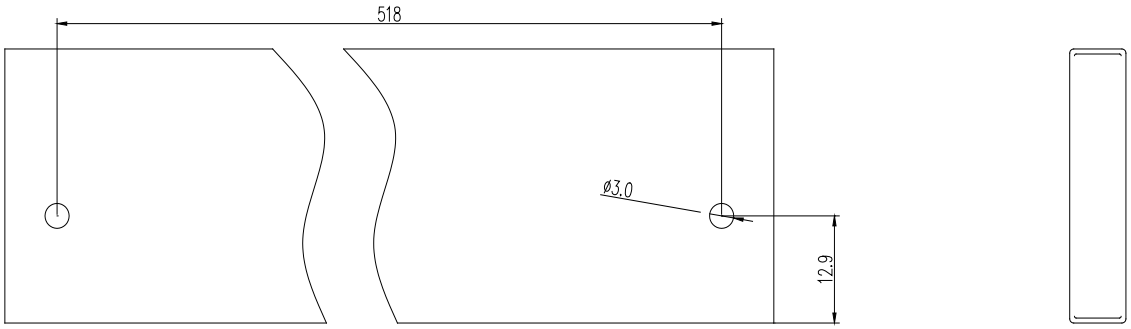
Date	Revision	Changes
Apr.10, 2023	A.1.0	Last updated
Oct.17, 2025	A.1.1	Revise PACKAGE MECHANICAL DATA

PACKAGE MECHANICAL DATA



Ref.	Dimensions					
	Millimeters			Inches		
	Min.	Typ.	Max.	Min.	Typ.	Max.
A	9.90		10.20	0.390		0.402
B	14.70		15.80	0.579		0.622
C	9.40		9.60	0.370		0.378
D	2.40			0.094		
E	1.20		1.50	0.047		0.059
F	0.75		0.85	0.029		0.033

DELIVERY MODE



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