



T1220H8E 12A TRIAC

Rev. A.1.1

**DESCRIPTION:**

The T1220H8E 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 relays. T1220H8E provides a very high switching capability up to junction temperatures of 150°C. Package TO-263 is RoHS compliant.

**MAIN FEATURES**

**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 ( $f_T=25$ )	$V_{DRM}$	800	V
Repetitive peak reverse voltage ( $f_T=25$ )	$V_{RRM}$	800	V
RMS on-state current ( $T=130$ )	$I_{T(RMS)}$	12	A

Peak pulse voltage ( $T_j=25$ ; non-repetitive, of state; FIG.8)	$V_{pp}$	4.5	kV
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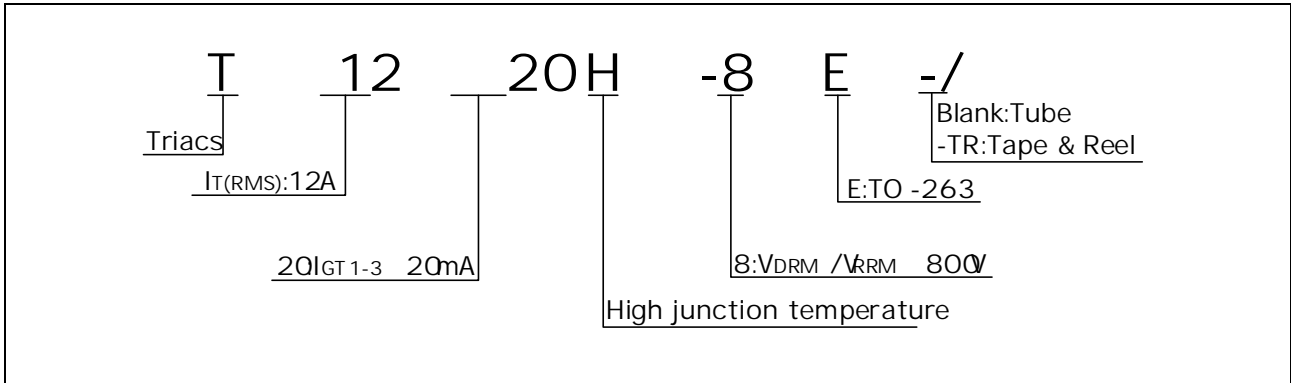
## ELECTRICAL CHARACTERISTICS (unless otherwise specified)

Symbol	Test Condition	Quadrant	Value		Unit
$I_{GT}$	$V_D = 12V$ $R_L = 33$	- -	MAX.	20	mA
$V_{GT}$		- -	MAX.	1	V
$V_{GD}$	$V_D = V_{DRM}$ $T_j = 150$ $R_L = 3.3k$	- -	MIN.	0.2	V
$I_L$	$I_G = 1.2I_{GT}$	-	MAX.	25	mA
				55	
$I_H$	$I_T = 500mA$		MAX.	25	mA
$dV/dt$	$V_D = 540V$ Gate Open $T_j = 150$		MIN.	400	V/s
$(dI/dt)_c$	$V_{GS} = 9V$ $V_{GD} = 7V$ $T_j = 150$		MIN.	3	A/ms
$t_{on}$	$I_G = 40mA$ $I_A = 200mA$ $I_R = 20mA$ $T_j = 25$		TYP.	3	s
$t_{off}$				60	

## STATIC CHARACTERISTICS

Symbol

ORDERING INFORMATION



MARKING

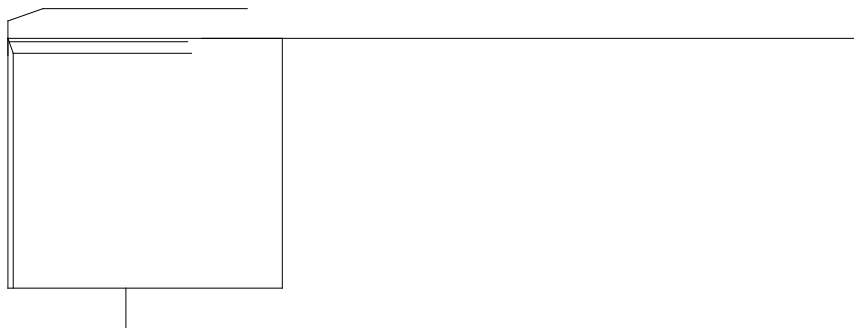


FIG.1 : Maximum power dissipation versus RMS on-state current

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

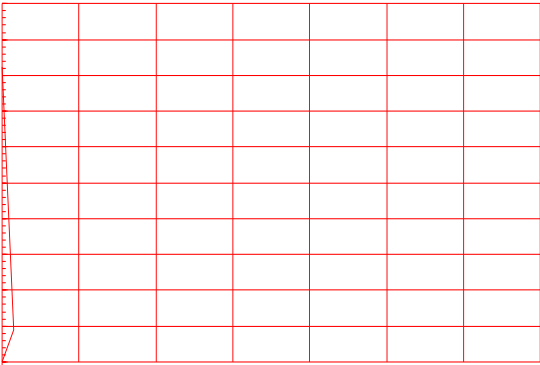
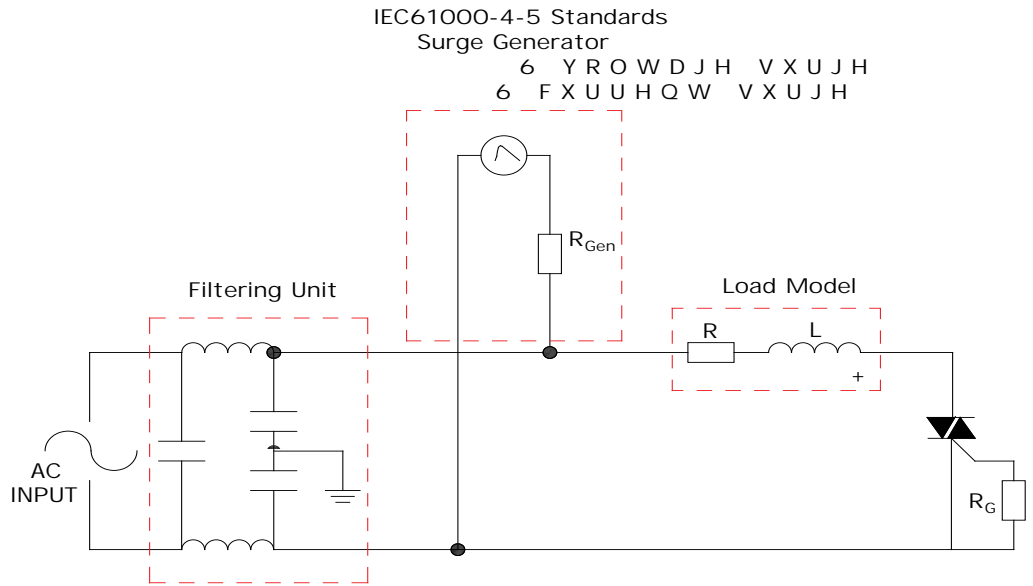




FIG.8 Test circuit for inductive and resistive loads to IEC61000-4-5 standards



## ORDERING INFORMATION

Order code	Voltage $V_{DRM}/V_{RRM}$ (V)	IGT (mA)	Package	Base qty. (pcs)	Delivery mode
		- -			
T1220H-8E	800	20	TO-263	50	Tube
T1220H-8E-TR				800	Tape & Reel

## Document Revision History

Date	Revision	Changes
Apr.11, 2023	A.1.0	Last updated
Oct17, 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	0.059
F						

DELIVERY MODE

