T1235H-8E 12

Peak pulse voltage (T_j=25 ; non-repetitive,off-state;FIG.8)	V_{pp}	4.5	kV

ELECTRICAL CHARACTERISTICS (T_j=25 unless otherwise specified)

Symbol	Test Condition	Quadrant	Value		Unit
I_{GT}	V_D =12V R_L =33Ω	- -	MAX.	35	mA
V_{GT}		- -	MAX.	1	V
V_{GD}	V_D =V_{DRM} T_j =150 R_L =3.3kΩ	- -	MIN.	0.2	V
I_L	I_G =1.2I_{GT}	-	MAX.	30	mA
				60	
I_H	I_T =500mA		MAX.	30	mA
dV/dt	V_D=540V Gate Open T_j =150		MIN.	500	V/μs
(dI/dt)c	(dV/dt)c=20V/μs, T_j=150		MIN.	5	A/ms
t_{on}	I_G=40mA I_A=200mA I_R=20mA T_j=25		TYP.	3	μs
t_{off}				60	

STATIC CHARACTERISTICS

Symbol	Parameter		Value(MAX.)	Unit
V_{TM}	I_{TM} =17A t_p=380μs	T_j=25	1.4	V
V_{TO}	Threshold voltage	T_j=150	0.75	V
R_D	Dynamic resistance	T_j=150	37	mΩ
I_{DRM}	V_D =V_{DRM} V_R =V_{RRM}	T_j=25	5	μA
I_{RRM}		T_j=150	2	mA

THERMAL RESISTANCES

Symbol	Parameter	Value	Unit
$R_{th(j-c)}$	junction to case (AC)	1.3	/W
$R_{th(j-a)}$	junction to ambient (AC, in free air, S=2cm^2)	45	/W

ORDERIND

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

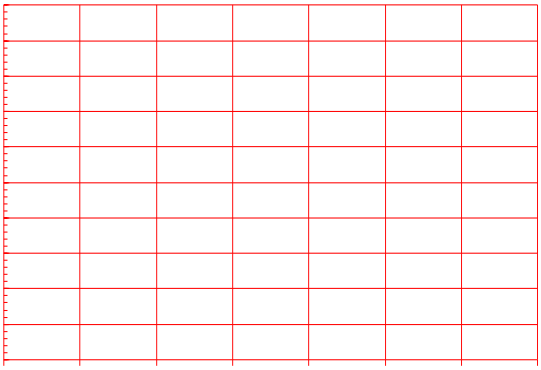
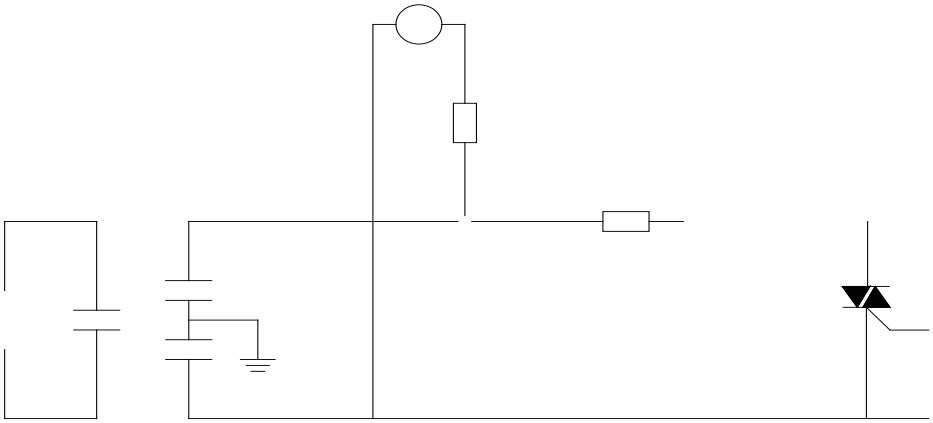


FIG.2: RMS on-state current versus case temperature

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



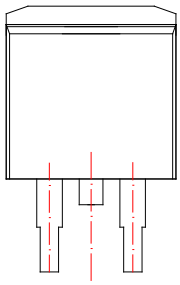
ORDERING INFORMATION

Order code	Voltage V_{DRM}/V_{RRM} (V)	IGT(mA)	Package	Base qty. (pcs)	Delivery mode
		- -			
T1235H-8E	800	35	TO-263	50	Tube
T1235H-8E-TR				800	Tape & Reel

Document Revision History

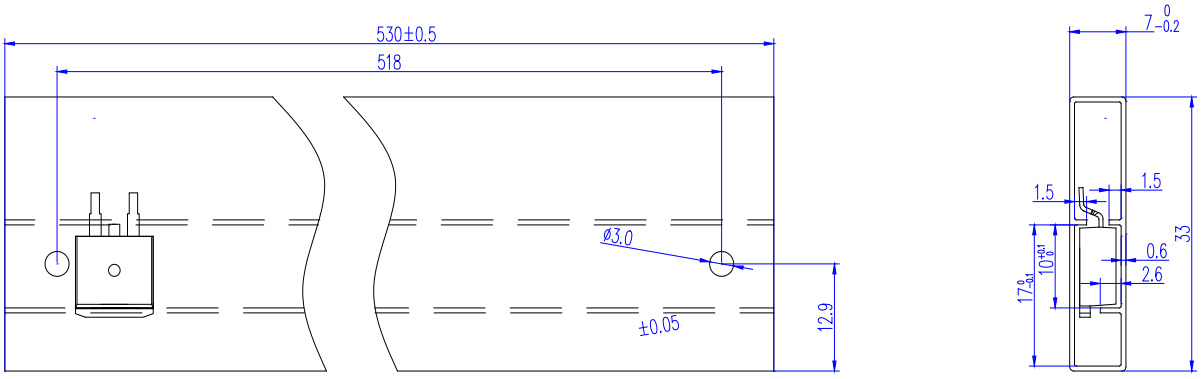
Date	Revision	Changes
Apr.11, 2023	A.1.0	Last updated
Oct.17, 2025	A.1.1	Revise PACKAGE MECHANICAL DATA

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



PACKAGE	OUTLINE	TUBE (PCS)	INNER BOX (PCS)	PER CARTON
TO-263	TUBE	50	1,000	5,000

	Dimensions					
Ref.	Millimeters			Inches		
	Min.	Typ.	Max.	Min.	Typ.	Max.
W	23.70	24.00	24.30			
E	1.65	1.75	1.85			
F	11.40	11.50	11.60			
D0	-	1.50	1.60			
D1		1.50	1.60			
P0	3.90	4.00	4.10			
P1	15.90	16.00	16.10			
P2	1.90	2.00	2.10			
A0		10.90	11.-5 (6.)4.9 (00)-1661.85			
B0						
K0						
t						