



JST137D-600D 8A TRIAC

Rev.A.1.1

DESCRIPTION:

The JST137D-600D 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. Package TO-262 is RoHS compliant.

MAIN FEATURES

ABSOLUTE MAXIMUM RATINGS

Parameter	Symbol	Value	Unit
Storage junction temperature range	$T_{stg}$	-40-150	
Operating junction temperature range	$T_j$	-40-125	
Repetitive peak off-state voltage ( $T_j=25^\circ\text{C}$ )	$V_{DRM}$	600	V
Repetitive peak reverse voltage ( $T_j=25^\circ\text{C}$ )	$V_{RRM}$	600	V
RMS on-state current ( $T_c=100^\circ\text{C}$ )	$I_{T(RMS)}$	8	A
Non repetitive surge peak on-state current (full cycle, $t_p=20\text{ms}$ , $T_j=25^\circ\text{C}$ )	$I_{TSM}$	65	A
Non repetitive surge peak on-state current (full cycle, $t_p=16.6\text{ms}$ , $T_j=25^\circ\text{C}$ )		72	
$I^2t$ value for fusing ( $t_p=10\text{ms}$ , $T_j=25^\circ\text{C}$ )	$I^2t$	21	$\text{A}^2\text{s}$
Critical rate of rise of on-state current ( $I_G=2\text{mA}$ , $f=100\text{Hz}$ , $T_j=125^\circ\text{C}$ )	$di/dt$		

ELECTRICAL CHARACTERISTICS (T<sub>j</sub>=25 unless otherwise specified)

Symbol	Test Condition	Quadrant	Value		Unit
I <sub>GT</sub>	V <sub>D</sub> =12V R <sub>L</sub> =33	- -	MAX.	5	mA
				10	
V <sub>GT</sub>		ALL	MAX.	1	V
V <sub>GD</sub>	V <sub>D</sub> =V <sub>DRM</sub> T <sub>j</sub> =125 R <sub>L</sub> =3.3k	ALL	MIN.	0.2	V
I <sub>L</sub>	I <sub>G</sub> =1.2I <sub>GT</sub>	- -	MAX.	15	mA
				20	
I <sub>H</sub>	I <sub>T</sub> =500mA		MAX.	10	mA
dV/dt	V <sub>D</sub> =400V Gate Open T <sub>j</sub> =125		MIN.	80	V s
(dV/dt) <sub>c</sub>	(dI/dt) <sub>c</sub> =2.7A/ms, T <sub>j</sub> =125		MIN.	2	9 V
t <sub>on</sub>	I <sub>G</sub> =20mA I <sub>A</sub> =200mA I <sub>R</sub> =20mA T <sub>j</sub> =25		TYP.	1.2	s
t <sub>off</sub>				15	

## STATIC CHARACTERISTICS

Symbol



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

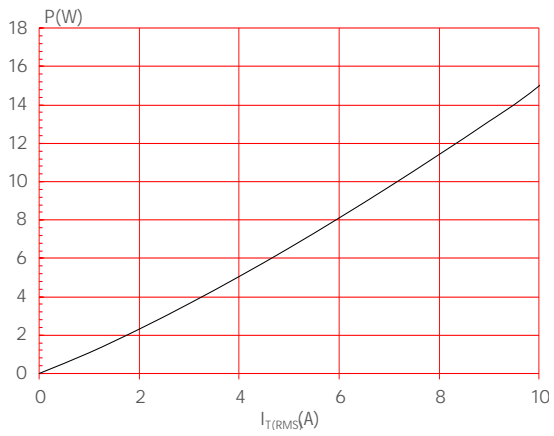
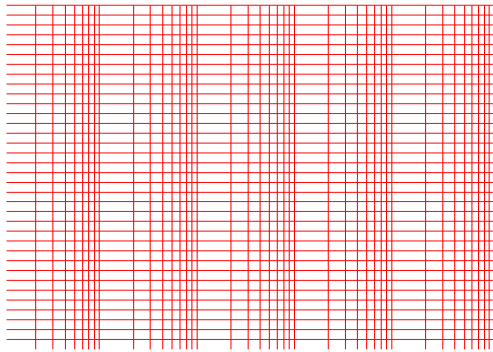


FIG.2: RMS on-state current versus case temperature

FIG.3: Surge peak on-state current versus number of cycles





ORDERING INFORMATION

Order code	Voltage $V_{DRM}/V_{RRM}$ (V)	IGT(mA)		Package	Base qty. (pcs)	Delivery mode
		-	-			
JST137D-600D	600	5	10	TO-262	50	Tube

Document Revision History

Date



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