



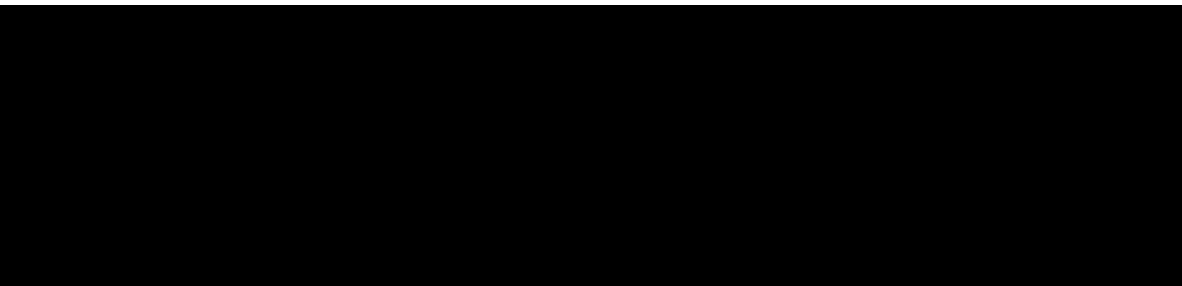
JST137E-600E 8A TRIAC

Rev.A.1.1

DESCRIPTION:

The JST137E-600E 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-263 is RoHS compliant.

MAIN FEATURES



in

12 44

Unit 3 442387 (at

ELECTRICAL CHARACTERISTICS (unless otherwise specified)

Symbol	Test Condition	Quadrant	Value		Unit
I_{GT}	$V_D=12V$ $R_L=33\Omega$	- -	MAX.	10	mA
				25	
V_{GT}		ALL	MAX.	1	V
V_{GD}	$V_D=V_{DRM}$ $T_j=125$ $R_L=3.3k\Omega$	ALL	MIN.	0.2	V
I_L	$I_G=1.2I_{GT}$	- -	MAX.	20	mA
				35	
I_H	$I_T=500mA$		MAX.	20	mA
dV/dt	$V_D=400V$ Gate Open $T_j=125$		MIN.	250	V/ μs
$(dV/dt)_c$	$(dI/dt)_c=2.7A/ms$, $T_j=125$		MIN.	5	V/ μs
t_{on}	$I_G=40mA$ $I_A=200mA$ $I_R=20mA$ $T_j=25$		TYP.	1.5	μs
t_{off}				15	

STATIC CHARACTERISTICS

Symbol	Parameter		Value(MAX.)	Unit
V_{TM}	$I_{TM}=10A$ $t_p=380\mu s$	$T_j=25$	1.5	V
V_{TO}	Threshold voltage	$T_j=125$	0.8	V
R_D	Dynamic resistance	$T_j=125$	53	m Ω
I_{DRM}	$V_D=V_{DRM}$ $V_R=V_{RRM}$	$T_j=25$	5	μA
I_{RRM}		$T_j=125$	0.35	mA

THERMAL RESISTANCES

Symbol	Parameter	Value	Unit
$R_{th(j-c)}$	junction to case (AC)	2.2	/W
$R_{th(j-a)}$	junction to ambient (AC, in free air, $S=2cm^2$)	60	/W

ORDERING INFORMATION

J	ST	137	E	-600	E	-/
JieJie Microelectronics Co., Ltd.	Triacs	$I_{T(RMS)}:8A$	E:TO-263	600:V _{DRM} /V _{RRM}	E:IGT1-3 10mA IGT4 25mA	Blank:Tube -TR:Tape & Reel

MARKING

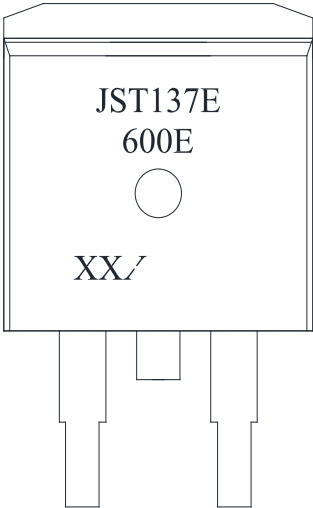


FIG.1: Maximum power dissipation versus RMS on-state current

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

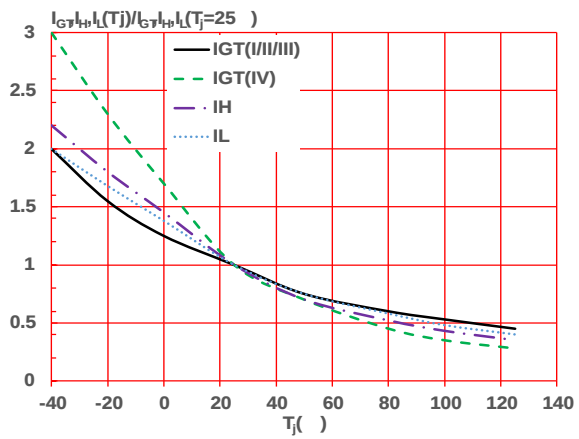


FIG.8: Test circuit for inductive and resistive loads to IEC-61000-4-

ORDERING INFORMATION

Order code	Voltage $V_{\text{DRM}}/V_{\text{RRM}}$ (V)	IGT(mA)		Package	Base qty. (pcs)	Delivery mode
		- -				
JST137E-600E	600	10	25	TO-263	50	Tube
JST137E-600E-TR					800	Tape & Reel

Document Revision History

Date	Revision	Changes
Apr.14, 2023	A.1.0	Last updated
Oct.21, 2025	A.1.1	Revise PACKAGE MECHANICAL DATA

PKE MECHANICAL DATA

Ref	Dmensi					
	Mileters			Inches		
	Mi	Typ.	Max.	Mi	Typ.	Max.
A						

DELIVERY MODE

