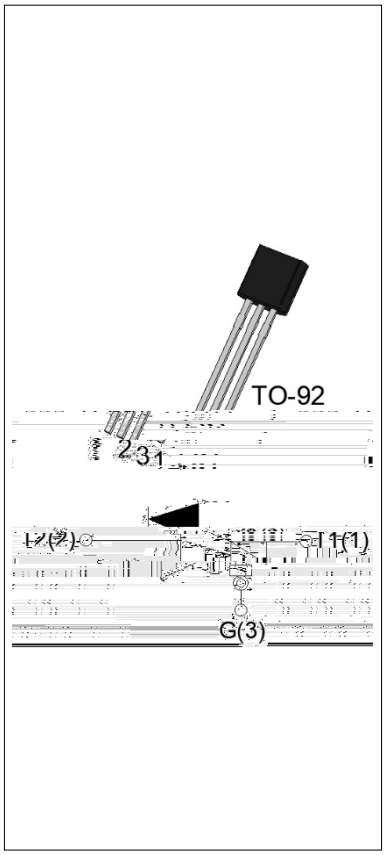
JPTT01U-800SW 1A TRIAC

Rev.A.2.1

DESCRIPTION:

The JPTT01U-800SW 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. The JPTT01U-800SW embeds a TVS structure to absorb the inductive turn-off energy such as those described in the IEC 61000-4-5 standards. At the same time, the triac shields the positive signal trigger to reduce the probability of product misoperation. It is triggered with a negative gate current flowing out of the gate pin. Package TO-92 is RoHS compliant.



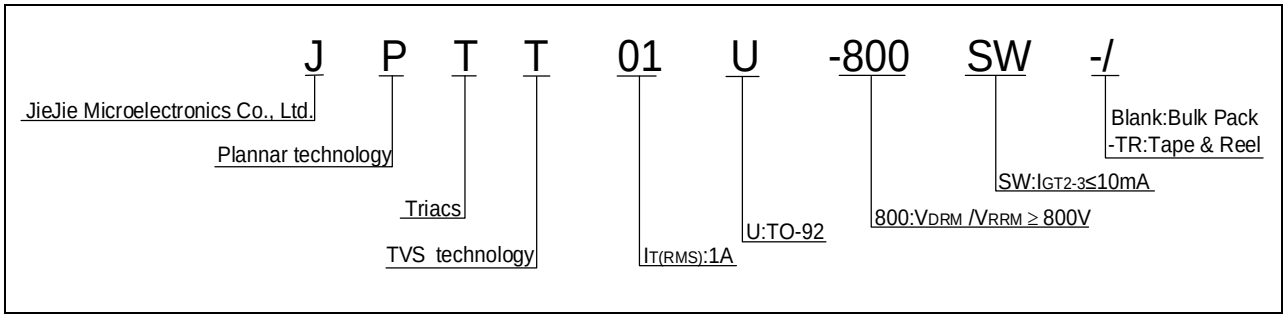
MAIN FEATURES

Symbol	Value	Unit
$I_{T(RMS)}$	1	A
V_{DRM} /V_{RRM}	800	V
I_{GT} /	10/10	mA

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)	V_{DRM}	800	V
Repetitive peak reverse voltage (T_j=25)	V_{RRM}	800	V
RMS on-state current ($T_C \leq$ 53)	$I_{T(RMS)}$	1	A
Non repetitive surge peak on-state current (full cycle , t_p=20ms , T_j=25)	I_{TSM}	14	A
Non repetitive surge peak on-state current (full cycle , t_p=16.6ms , T_j=25)		15.4	
I^2t value for fusing (t_p=10ms , T_j=25)	I^2t	0.98	A^2s
Critical rate of rise of on-state current (I_G=2 × I_{GT} , f=100Hz , T_j=125)	dI/dt	100	A/μs
Peak gate current (t_p=20μs , T_j=125)	I_{GM}	1	A
Positive applied gate voltage	V_{GM}	15	V

ORDERING INFORMATION



MARKING

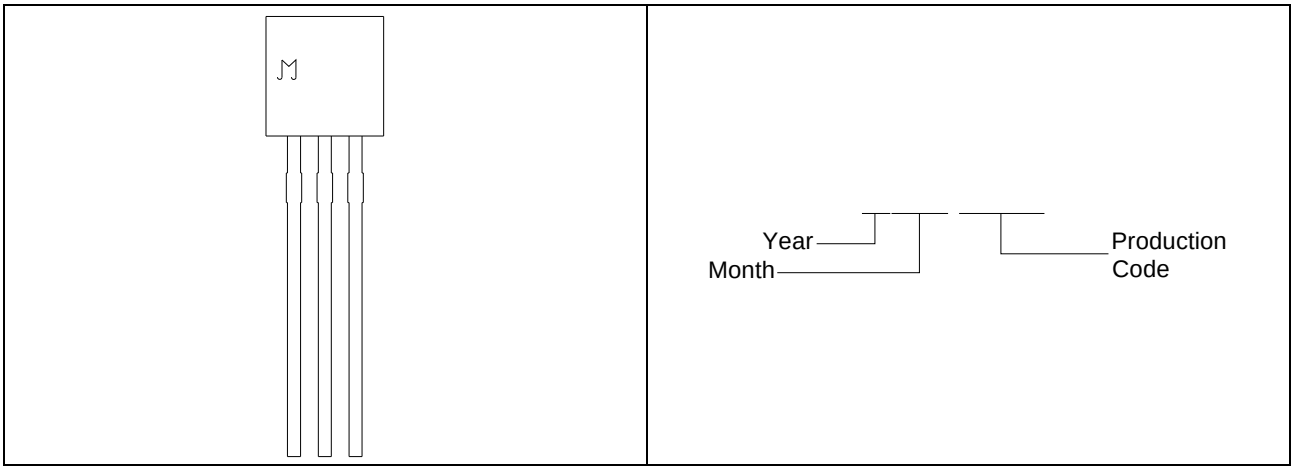


FIG.1: Maximum power dissipation versus RMS on-state current

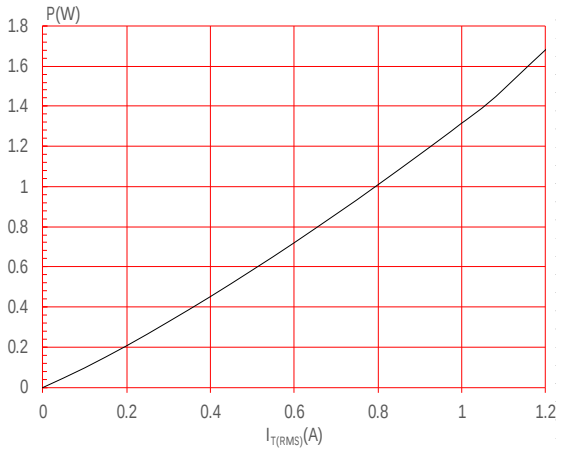


FIG.2: RMS on-state current versus case temperature

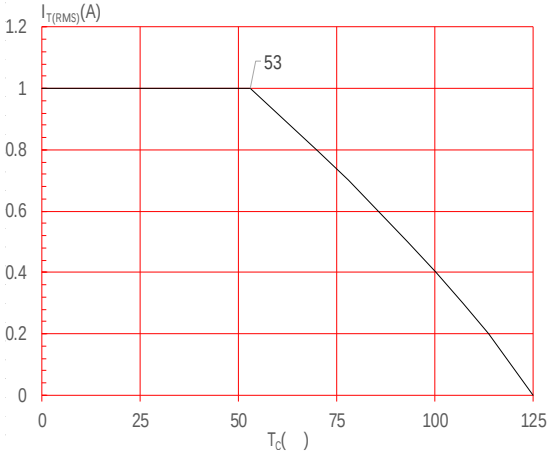


FIG.3: Surge peak on-state current versus number of cycles

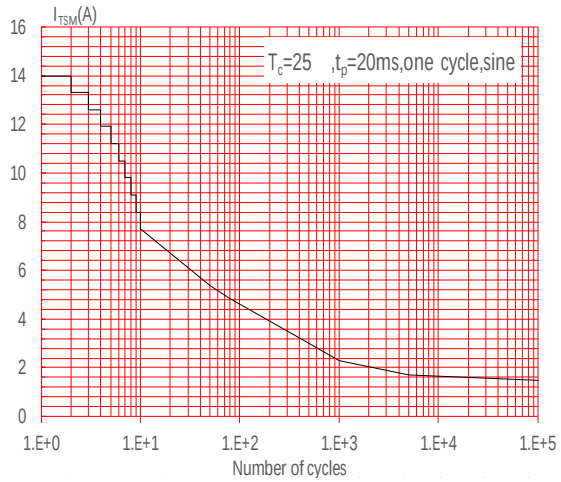


FIG.4: On-state characteristics

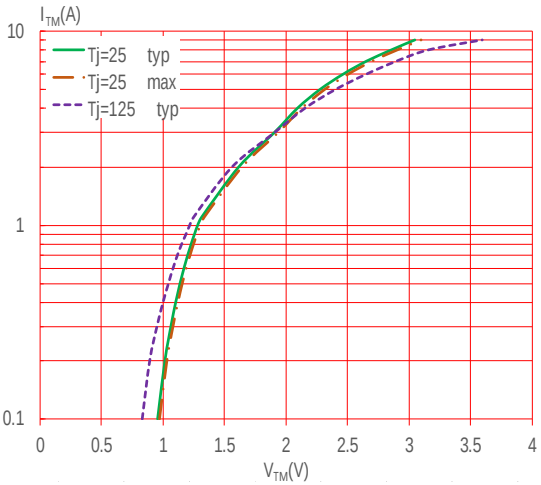


FIG.5: Non-repetitive surge peak on-state current for a sinusoidal pulse with width t_p<20ms, and corresponding value of I^2t (dI/dt<100A/μs)

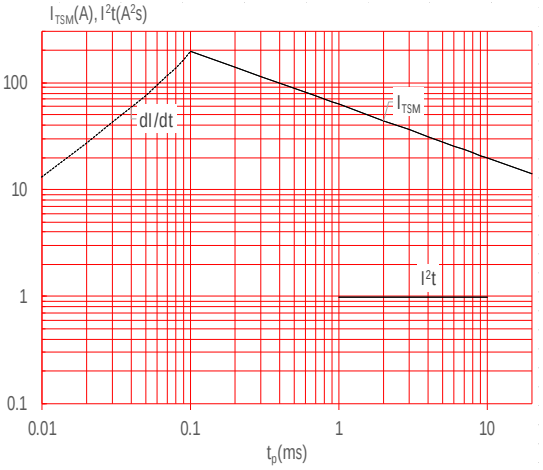


FIG.6: Relative variations of gate trigger current, holding current and latching current versus junction temperature

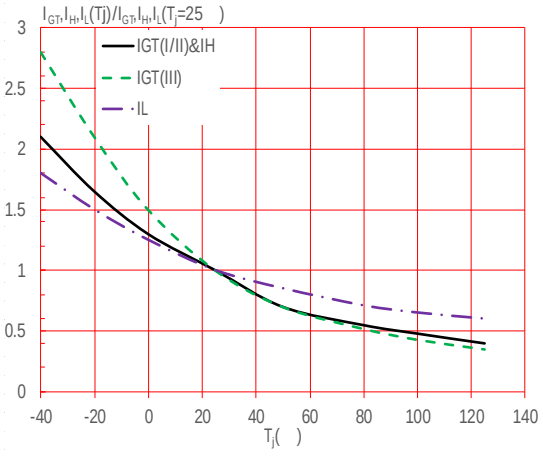


FIG.7 Test circuit for inductive and resistive loads to IEC-61000-4-5 standards

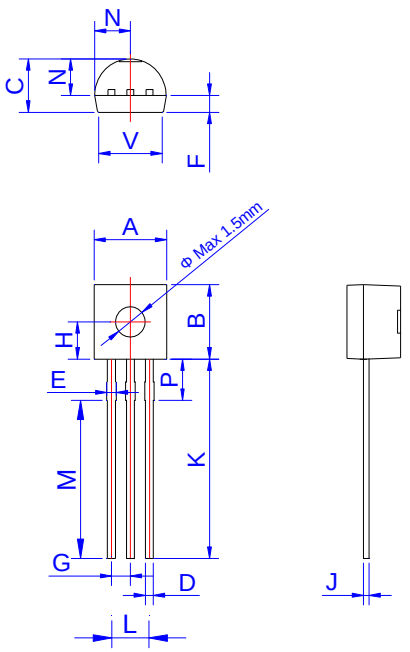


ORDERING INFORMATION

Order code	Voltage V_{DRM}/V_{RRM} (V)	IGT(mA)	Package	Base qty. (pcs)	Delivery mode
JPTT01U-800SW	800	10	TO-92	1,000	Bulk Pack
JPTT01U-800SW-TR				2,000	Tape & Reel

Document Revision History

PACKAGE MECHANICAL DATA



Ref.	Dimensions					
	Millimeters			Inches		
	Min.	Typ.	Max.	Min.	Typ.	Max.
A	4.45		5.20	0.175		0.205
B	4.32		5.33	0.170		0.210
C	3.18		4.19	0.125		0.165
D	0.407		0.533	0.016		0.021
E	0.50		0.70	0.020		0.028
F	1.10		1.30	0.043		0.051
G	1.10		1.40	0.043		0.055
H	2.20		2.40	0.087		0.094
J	0.36		0.50	0.014		0.020
K	12.70		15.0	0.500		0.591
L	2.44		2.64	0.096		0.104
M	11.64		12.04	0.458		0.474
N	2.04		2.66	0.080		0.105
P	1.80		2.30	0.071		0.091
V	4.10		4.50	0.161		0.177

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