

Peak pulse voltage ($T_j=25$; non-repetitive, off-state; FIG.7)	V_{pp}	4	kV
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($T_j=25$ unless otherwise specified)

Symbol	Test Condition	Quadrant	Value		Unit
I_{GT}	$V_D=12V R_L=33$	- -	MAX.	10	mA
V_{GT}		- -	MAX.	1	V
V_{GD}	$V_D=V_{DRM} T_j=125$ $R_L=3.3k$	- -	MIN.	0.2	V
I_L	$I_G=1.2I_{GT}$	-	MAX.	20	mA
				30	
I_H	$I_T=100mA$		MAX.	15	mA
dV/dt	$V_D=670V$ Gate Open $T_j=125$		MIN.	300	V/ μs
(dI/dt)c	(dV/dt)c=10V/ μs $T_j=125$		MIN.	1.5	A/ms
t_{on}	$I_G=20mA I_A=200mA I_R=20mA$ $T_j=25$		TYP.	2.5	μs
t_{off}				25	

Symbol	Parameter		Value(MAX.)	Unit
V_{TM}	$I_{TM}=3A t_p=380\mu s$	$T_j=25$	1.5	V
V_{TO}	Threshold voltage	$T_j=125$	0.93	V
R_D	Dynamic resistance	$T_j=125$	146	m
I_{DRM}	$V_D=V_{DRM} V_R=V_{RRM}$	$T_j=25$	8	μA
I_{RRM}		$T_j=125$	0.2	mA

Symbol	Parameter	Value	Unit
$R_{th(j-c)}$	junction to case (AC)	65	/W
$R_{th(j-a)}$	junction to ambient (AC)	160	/W

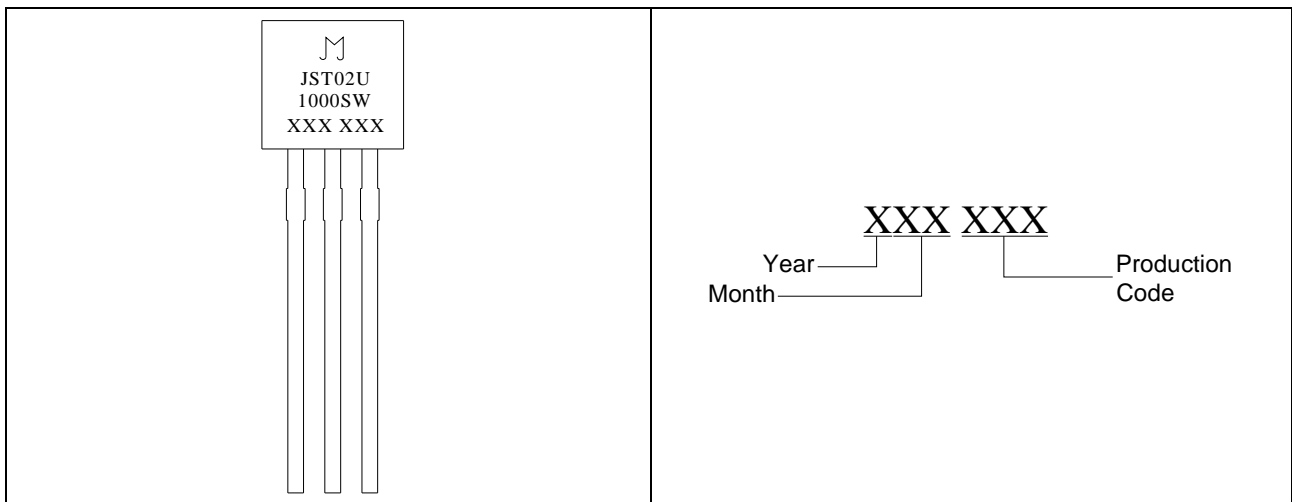
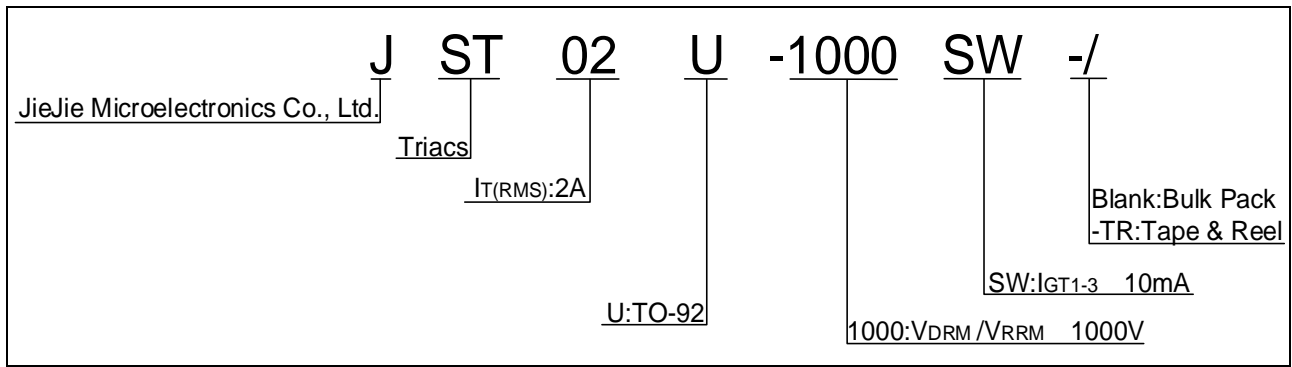


FIG.1: Maximum power dissipation versus RMS on-state current

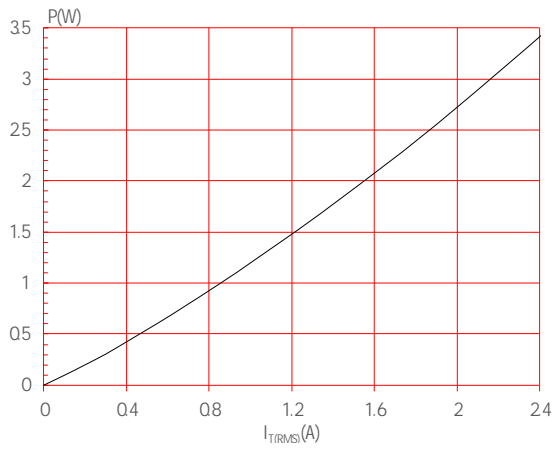


FIG.2: RMS on-state current versus case temperature

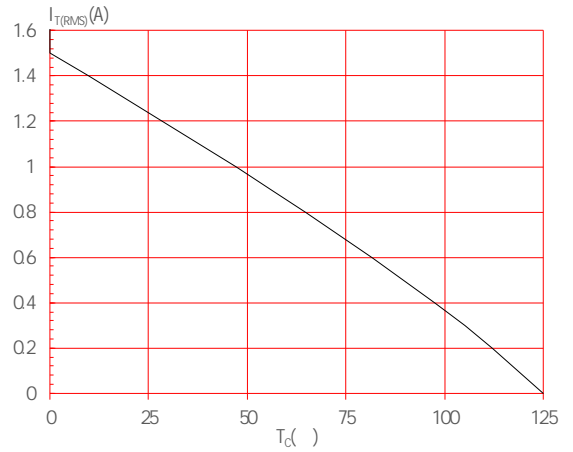


FIG.3: Surge peak on-state current versus number of cycles

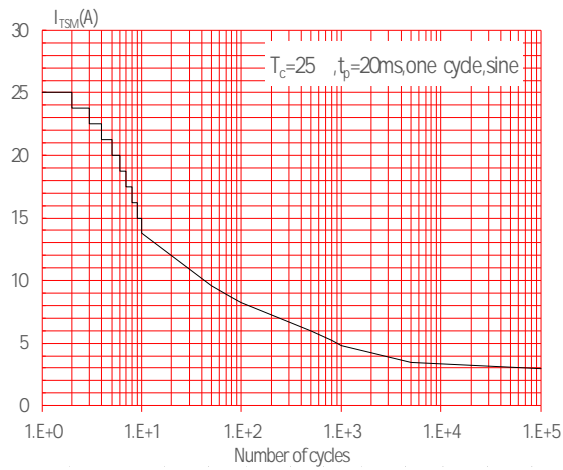


FIG.4: On-state characteristics

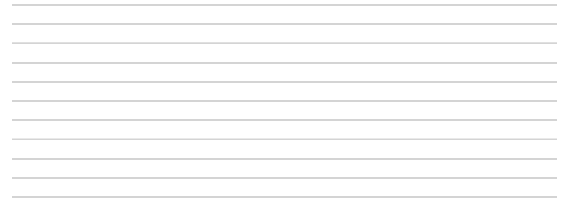
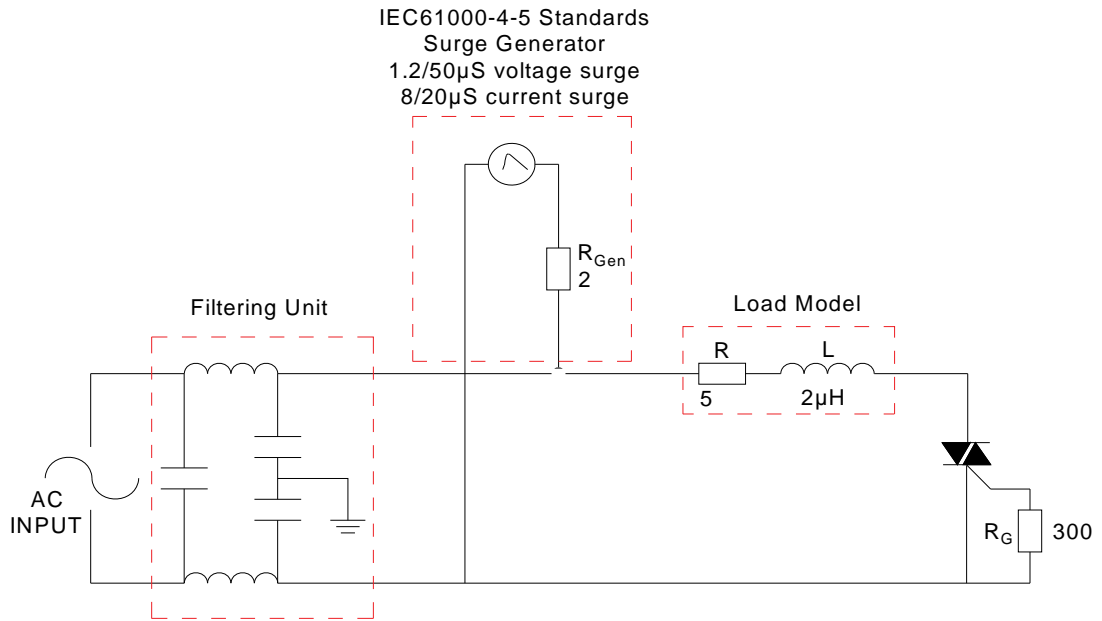
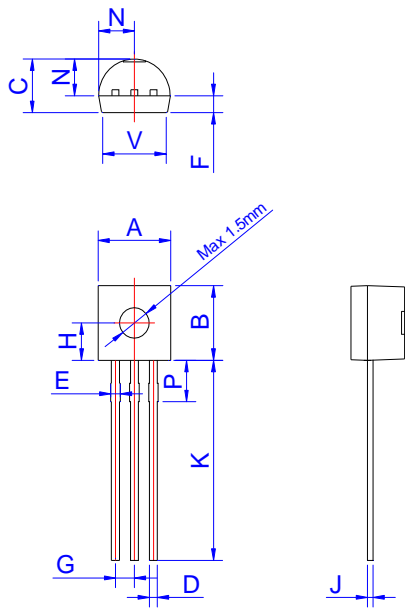


FIG.7 Test circuit for inductive and resistive loads to IEC-61000-4-5 standards





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			0.051
G	1.10		1.40	0.043		
H	2.20			0.087		
J	0.36		0.50	0.014		0.020
K	12.70		15.0	0.500		0.591
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

PACKAGE	OUTLINE	BAG (PCS)	INNER BOX (PCS)	CARTON BOX (PCS)
TO-92	Bulk Pack	1,000	10,000	50,000

