



JX007U 0.8A Sensitive SCR

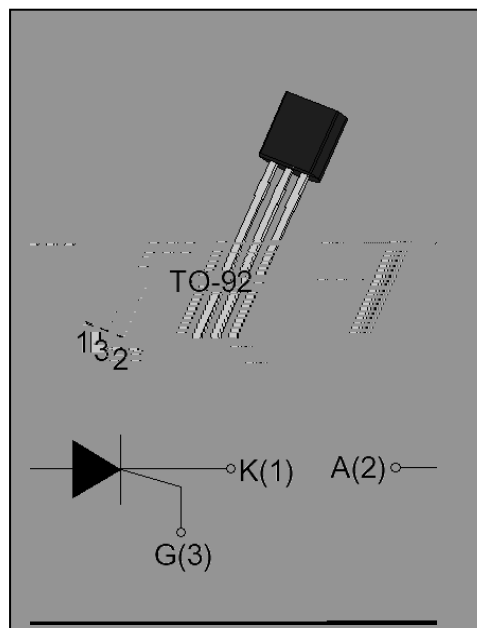
Rev.A.2.1

DESCRIPTION:

The JX007U SCR provides high dV/dt rate with strong resistance to electromagnetic interface. It is especially recommended for use on residual current circuit breaker, straight hair, igniter etc. Package TO-92 is RoHS compliant.

MAIN FEATURES

Symbol	Value	Unit
$I_{T(RMS)}$	0.8	A
V_{DRM}/V_{RRM}	500	V
I_{GT}	≤ 120	μA



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 ($T_j=25^\circ C$)	V_{DRM}	500	V
Repetitive peak reverse voltage ($T_j=25^\circ C$)	V_{RRM}	500	V
Average on-state current ($T_c \leq 60^\circ C$)	$I_{T(AV)}$	0.5	A
RMS on-state current ($T_c \leq 60^\circ C$)	$I_{T(RMS)}$	0.8	A
Non repetitive surge peak on-state current ($t_p=10ms$, $T_j=25^\circ C$)	I_{TSM}	8	A
Non repetitive surge peak on-state current ($t_p=8.3ms$, $T_j=25^\circ C$)		9	
I^2t value for fusing ($t_p=10ms$, $T_j=25^\circ C$)	I^2t	0.32	A^2s
Critical rate of rise of on-state current ($I_G=2 \times I_{GT}$, $f=100Hz$, $T_j=125^\circ C$)	di/dt	50	$A/\mu s$
Peak gate current ($t_p=20\mu s$, $T_j=125^\circ C$)	I_{GM}	1	A
Average gate power dissipation ($T_j=125^\circ C$)	$P_{G(AV)}$	0.1	W



Peak gate power	P_{GM}	2	W
Peak pulse voltage ($T_j=25^\circ\text{C}$; non-repetitive, off-state; FIG.7)	V_{pp}	1	kV

NOTE 1: Operating junction temperature T_j is up to 125°C when a resistor $\leq 1\text{k}\Omega$ is connected between Gate and Cathode. Without this resistor, the T_j is up to 110°C only.

ELECTRICAL CHARACTERISTICS

unless otherwise specified

Symbol	Test Condition	Value			Unit
		MIN.	TYP.	MAX.	
I_{GT}	$V_D=12\text{V}$ $R_L=33\Omega$	-	-	120	μA
V_{GT}		-	0.6	0.8	V
V_{GD}	$V_D=V_{DRM}$ $T_j=125^\circ\text{C}$ + /	0.2	-	-	V

JX007U



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ORDERING INFORMATION



FIG.1:

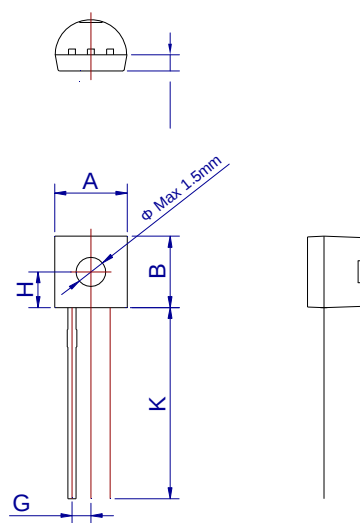


FIG.7 Test circuit for inductive and resistive loads to IEC-61000-4-5 standards.





PACKAGE MECHANICAL DATA





DELIVERY MODE

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

	-0.1	0	0.1	-0.1	0	0.1
		0		/	/	
W2						
D0	3.80	4.00	4.20			
H	-1.00	0	1.00			
L1	2.50					
H	18.00	19.00	20.00			



Information ffCo σ ϕz *cf ° ℒ L M
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