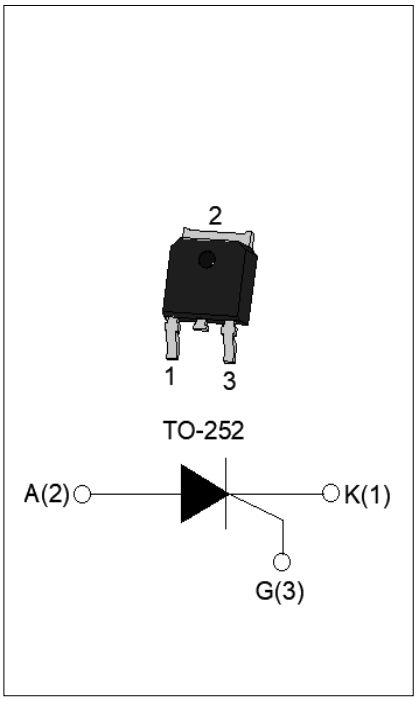
JCT616KH 16A SCR

Rev.A.1.1

DESCRIPTION:

With high ability to withstand the shock loading of large current, JCT616KH of silicon controlled rectifiers provides high dV/dt rate with strong resistance to electromagnetic interference.
It is especially recommended for use on solid state relay, motorcycle, power charger, T-tools etc. Package TO-252 is RoHS compliant.



MAIN FEATURES

Symbol	Value	Unit
$I_{T(RMS)}$	16	A
V_{DRM}/V_{RRM}	600	V
I_{GT}	15	mA

ABSOLUTE MAXIMUM RATINGS

Parameter	Symbol	Value	Unit
Storage junction temperature range	T_{stg}	-40-150	
Operating junction temperature range	T_j	-40-150	
Repetitive peak off-state voltage (T_j=25)	V_{DRM}	600	V
Repetitive peak reverse voltage (T_j=25)	V_{RRM}	600	V
Average on-state current ($T_C \leq$ 132)	$I_{T(AV)}$	10	A
RMS on-state current ($T_C \leq$ 132)	$I_{T(RMS)}$	16	A
Non repetitive surge peak on-state current (t_p=10ms, T_j=25)	I_{TSM}	150	A
Non repetitive surge peak on-state current (t_p=8.3ms, T_j=25)		165	
I^2t value for fusing (t_p=10ms , T_j=25)	I^2t	113	A^2s
Critical rate of rise of on-state current (I_G=2× I_{GT}, f=100Hz , T_j=150)	dI/dt	150	A s
Peak gate current (t_p=20 s , T_j=150)	I_{GM}	5	A

Average gate power dissipation (T_j=150)	$P_{G(AV)}$	1	W
Peak gate power	P_{GM}	20	W
Peak pulse voltage (T_j=25 ; non-repetitive,off-state;FIG.8)	V_{pp}	0.5	kV

ELECTRICAL CHARACTERISTICS (T_j=25 unless otherwise specified)

Symbol	Test Condition	Value			Unit
		MIN.	TYP.	MAX.	
I_{GT}	V_D=12V R_L=33	-	-	15	mA
V_{GT}		-	-	1	V
V_{GD}	V_D=V_{DRM} T_j=150 R_L=3.3k	0.2	-	-	V
I_L	I_G=1.2I_{GT}	-	-	60	mA
I_H	I_T=500mA	-	-	50	mA
dV/dt	V_D=400V Gate Open T_j=125	800	-	-	V s
	V_D=400V Gate Open T_j=150	400	-	-	
t_{on}	I_G=20mA I_A=200mA I_R=20mA T_j=25	-	2	-	s
t_{off}		-	60	-	

STATIC CHARACTERISTICS

Symbol	Parameter		Value(MAX.)	Unit
V_{TM}	I_{TM}=32A t_p=380 s	T_j=25	1.5	V
V_{TO}	Threshold voltage	T_j=150	0.74	V
R_D	Dynamic resistance	T_j=150	25	
I_{DRM}	V_D=V_{DRM} V_R=V_{RRM}	T_j=25	5	A
I_{RRM}		T_j=150	1.5	mA

THERMAL RESISTANCES

Symbol	Parameter	Value	Unit
$R_{th(j-c)}$	junction to case(DC)	0.9	/W
$R_{th(j-a)}$	junction to ambient (DC)	100	/W

ORDERING INFORMATION

J CT 6 16 K H -/

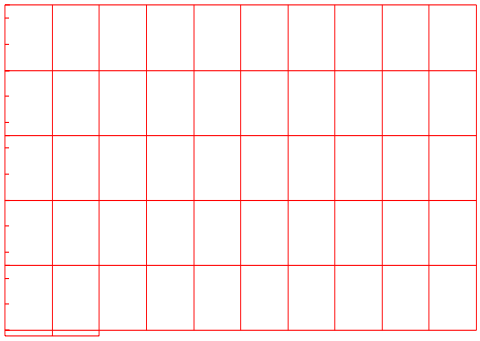
J: JieJie Microelectronics Co., Ltd.

CT: SCRs

6: V_{DRM} /V_{RRM} ≥ 600

JCT616KH

FIG.7: Relative variations of gate trigger current, holding current and latching current versus junction temperature

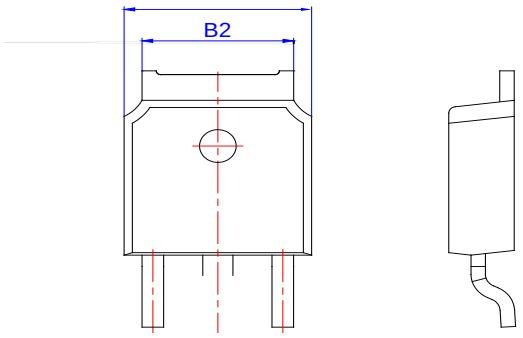


JCT616KH **JieJie**

ORDERING INFORMATION

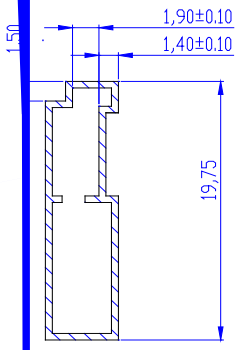
Order code	Voltage

PACKAGE MECHANICAL DATA



Ref.	Dimensions					
	Millimeters			Inches		
	Min.	Typ.	Max.	Min.	Typ.	Max.
A	2.10		2.50	0.083		0.098
A2	0		0.15	0		0.006
B	0.66		0.86	0.026		0.034
B2	5.18		5.48	0.202		0.216
C	0.40		0.60	0.016		0.024
C2	0.44		0.58	0.017		0.023
D	5.90		6.30	0.232		0.248
D1						
E	6.40		6.80	0.252		0.268
E1	4.63			0.182		
G	4.47		4.67	0.176		0.184
G1	2.18		2.38	0.086		0.094
L	1.09		1.21	0.043		0.048
L2	1.35		1.65	0.053		0.065

DELIVERY MODE



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