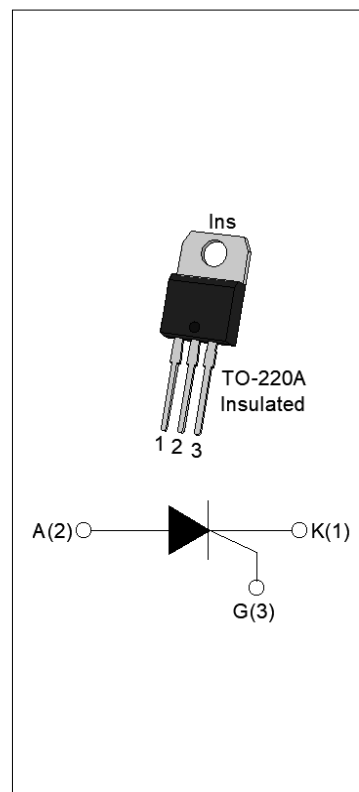




### DESCRIPTION:

With high ability to withstand the shock loading of large current, JCT816A 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. From all three terminals to external heatsink, JCT816A provides a rated insulation voltage of 2500  $V_{RMS}$ , complying with UL standards (File ref: E252906). Package TO-220A is RoHS compliant.



### MAIN FEATURES

Symbol	Value	Unit
$I_{T(RMS)}$	16	A
$V_{DRM}/V_{RRM}$	800	V
$I_{GT}$	15	mA

### ABSOLUTE MAXIMUM RATINGS

Parameter	Symbol	Value	Unit
Storage junction temperature range	$T_{stg}$	-40-150	
Operating junction temperature range	$T_j$	-40-125	
Repetitive peak off-state voltage ( $T_j=25^\circ C$ )	$V_{DRM}$	800	V
Repetitive peak reverse voltage ( $T_j=25^\circ C$ )	$V_{RRM}$	800	V
Average on-state current ( $T_c = 76^\circ C$ )	$I_{T(AV)}$	10	A
RMS on-state current ( $T_c = 76^\circ C$ )	$I_{T(RMS)}$	16	A
Non repetitive surge peak on-state current ( $t_p=10ms, T_j=25^\circ C$ )	$I_{TSM}$	150	A
Non repetitive surge peak on-state current ( $t_p=8.3ms, T_j=25^\circ C$ )		165	
$I^2t$ value for fusing ( $t_p=10ms, T_j=25^\circ C$ )	$I^2t$	113	$A^2s$
Critical rate of rise of on-state current ( $I_G=2 \times I_{GT}, f=100Hz, T_j=125^\circ C$ )	$di/dt$	150	$A/\mu s$

Peak gate current ( $t_p=20\mu s$ , $T_j=125$ )	$I_{GM}$	5	A
Average gate power dissipation ( $T_j=125$ )	$P_{G(AV)}$	1	W
Peak gate power	$P_{GM}$	20	W
Peak pulse voltage ( $T_j=25$ ; non-repetitive, off-state; FIG.7)	$V_{pp}$	0.5	kV

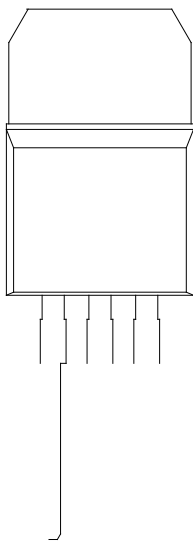
**ELECTRICAL CHARACTERISTICS** ( $T_j=25$  unless otherwise specified)

Symbol	Test Condition	Value			Unit
		MIN.	TYP.	MAX.	
$I_{GT}$	$V_D=12V$ $R_L=33$	-	-	15	mA
$V_{GT}$		-	-	1	V
$V_{GD}$	$V_D=V_{DRM}$ $T_j=125$ $R_L=3.3k$	0.2	-	-	V
$I_L$	$I_G=1.2I_{GT}$	-	-	60	mA

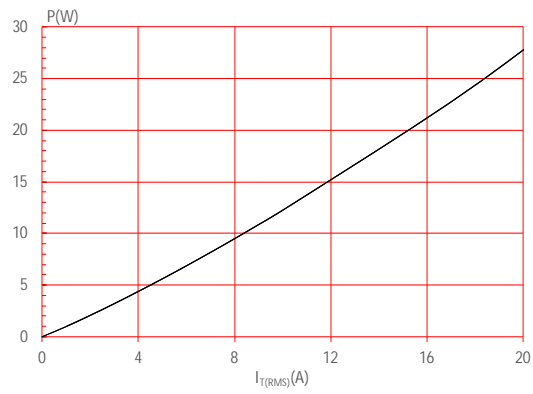
ORDERING INFORMATION

<u>J</u>	<u>CT</u>	<u>8</u>	<u>16</u>	<u>A</u>
JieJie Microelectronics Co., Ltd.	SCRs			A:TO-220A(Ins)
	8:V <sub>DRM</sub> /V <sub>RRM</sub> 800V			I <sub>T(RMS)</sub> :16A

MARKING



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



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

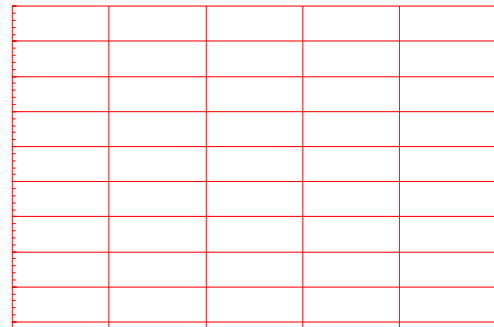
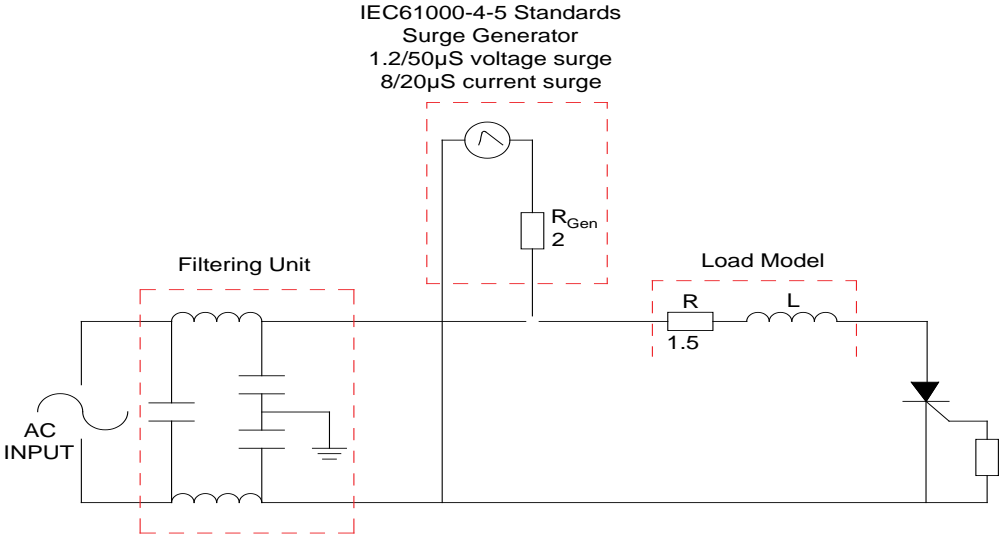


FIG.7 Test circuit for inductive and resistive loads to IEC-61000-4-5 standards.



**ORDERING INFORMATION**

Order code	Voltage $V_{DRM}/V_{RRM}$ (V)	IGT(mA)	Package	Base qty. (pcs)	Delivery mode
JCT816A	800	15	TO-220A(Ins)	50	Tube

**Document Revision History**

Date	Revision	Changes
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**JCT816A**

