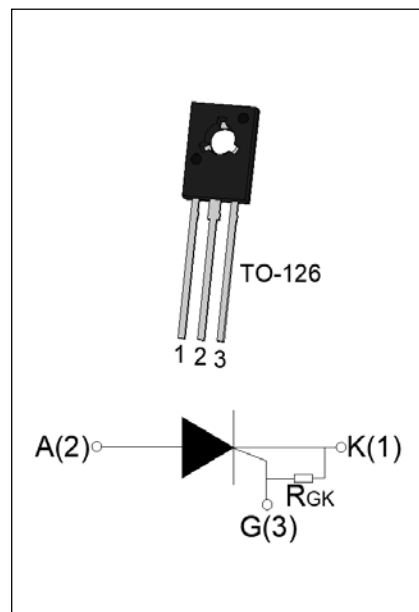




The JR0405Q SCR with the parallel resistor between Gate and Cathode,  $R_{GK}=10\sim 80k$  , is especially recommended for use on straight hair, igniter, anion generator, etc. Package TO-126 is RoHS compliant.

Symbol	Value	Unit
$I_{T(RMS)}$	4	A
$V_{DRM}/V_{RRM}$	600	V
$I_{GT}$	200	$\mu A$



Parameter	Symbol	Value	Unit
Storage junction temperature range	$T_{stg}$	-40-150	$^{\circ}C$
Operating junction temperature range	$T_j$	-40-125 <sup>①</sup>	$^{\circ}C$
Repetitive peak off-state voltage ( $T_j=25^{\circ}C$ )	$V_{DRM}$	600	V
Repetitive peak reverse voltage ( $T_j=25^{\circ}C$ )	$V_{RRM}$	600	V
Average on-state current ( $T_c \leq 85^{\circ}C$ )	$I_{T(AV)}$	2.5	A
RMS on-state current ( $T_c \leq 85^{\circ}C$ )	$I_{T(RMS)}$	4	A
Non repetitive surge peak on-state current ( $t_p=10ms$ , $T_j=25^{\circ}C$ )	$I_{TSM}$	40	A
Non repetitive surge peak on-state current ( $t_p=8.3ms$ , $T_j=25^{\circ}C$ )		44	
$I^2t$ value for fusing ( $t_p=10ms$ , $T_j=25^{\circ}C$ )	$I^2t$	8	$A^2s$
Critical rate of rise of on-state current ( $I_G=2 I_{GT}$ , $f=100Hz$ , $T_j=125^{\circ}C$ )	$di/dt$	50	$A/\mu s$
Peak gate current ( $t_p=20\mu s$ , $T_j=125^{\circ}C$ )	$I_{GM}$	2	A
Average gate power dissipation ( $T_j=125^{\circ}C$ )	$P_{G(AV)}$	0.5	W

Peak gate power	$P_{GM}$	5	W
Peak pulse voltage ( $T_j=25^{\circ}\text{C}$ ; non-repetitive, off-state; FIG.7)	$V_{pp}$	0.5	kV

**NOTE 1:** When we parallel connect a  $T_j$  can reach  $125^{\circ}\text{C}$ ; if without this resistor, the  $T_j$  only can reach  $110^{\circ}\text{C}$ .

( $T_j=25^{\circ}\text{C}$  unless otherwise specified)

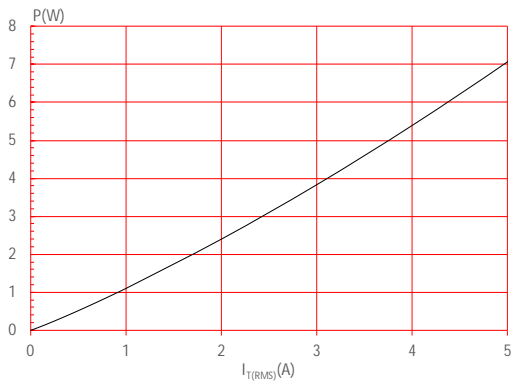
Symbol	Test Condition	Value			Unit
		MIN.	TYP.	MAX.	
$I_{GT}$	$V_D=12\text{V } R_L=33$	-	50	200	$\mu\text{A}$
$V_{GT}$		-	0.6	0.8	V
$V_{GD}$	$V_D=V_{DRM} T_j=125^{\circ}\text{C}$	0.2	-	-	V
$I_L$	$I_G=1.2 I_{GT}$	-	-	6	mA
$I_H$	$I_T=0.1\text{A}$	-	-	5	mA
dV/dt	$V_D=400\text{V } T_j=125^{\circ}\text{C } R_{GK}=1\text{K}$	50	-	-	$\text{V}/\mu\text{s}$
	$V_D=400\text{V } T_j=125^{\circ}\text{C } R_{GK}=220$	250	-	-	
$t_{on}$	$I_G=10\text{mA } I_A=20\text{mA } I_R=2\text{mA}$ $T_j=25^{\circ}\text{C}$	-	2	-	$\mu\text{s}$
$t_{off}$		-	50	-	

Symbol	Parameter		Value(MAX.)	Unit
$V_{TM}$	$I_{TM}=8\text{A } t_p=380\mu\text{s}$	$T_j=25^{\circ}\text{C}$	1.6	V
$V_{TO}$	Threshold voltage	$T_j=125^{\circ}\text{C}$	0.64	V
$R_D$	Dynamic resistance	$T_j=125^{\circ}\text{C}$	0.08	
$I_{DRM}$	$V_D=V_{DRM} V_R=V_{RRM}$	$T_j=25^{\circ}\text{C}$	5	$\mu\text{A}$
$I_{RRM}$		$T_j=125^{\circ}\text{C}$	0.5	mA

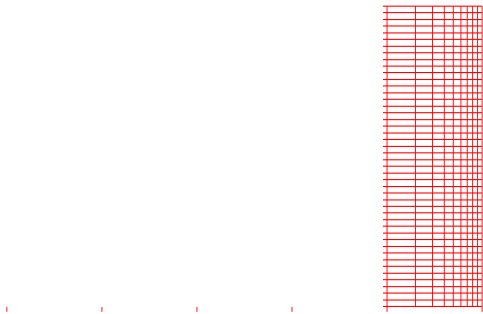
Symbol	Parameter	Value	Unit
$R_{th(j-c)}$	junction to case (DC)	7.5	$^{\circ}\text{C}/\text{W } T_{j-c}$

J R 04 05 Q

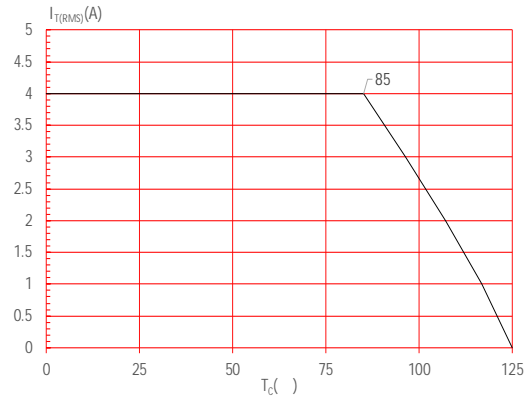
**FIG.1** Maximum power dissipation versus RMS on-state current



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

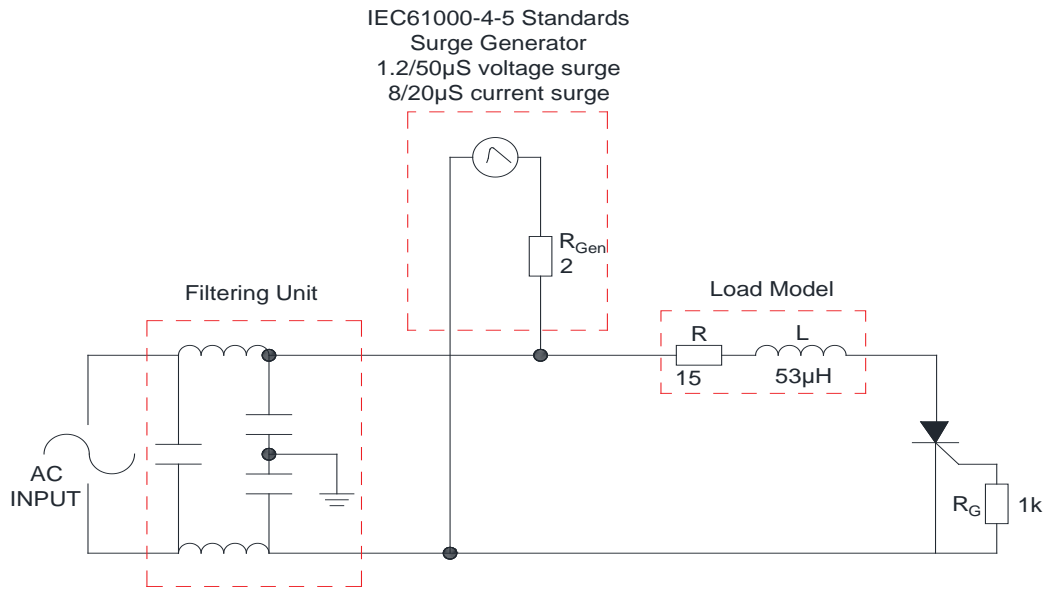


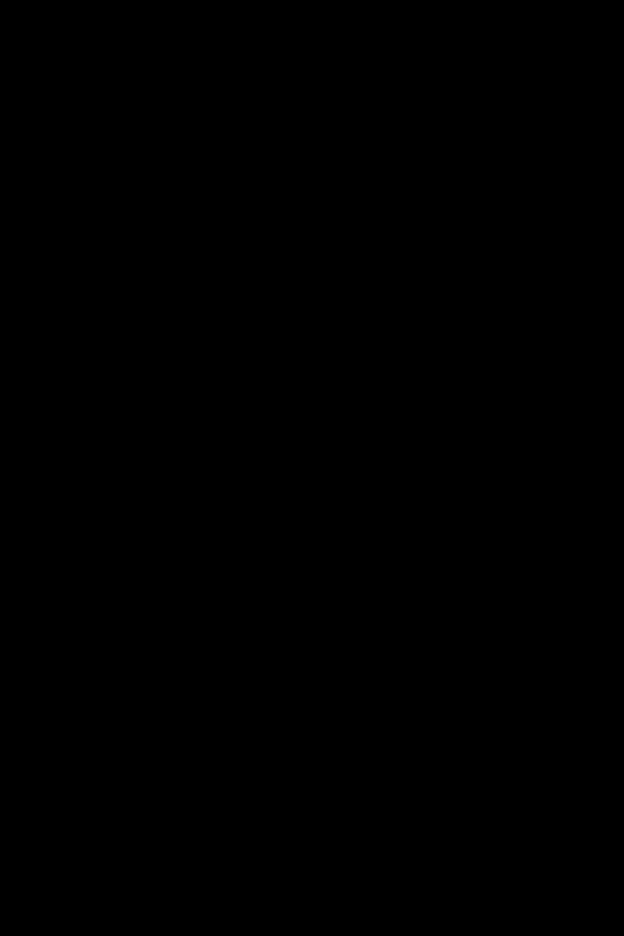
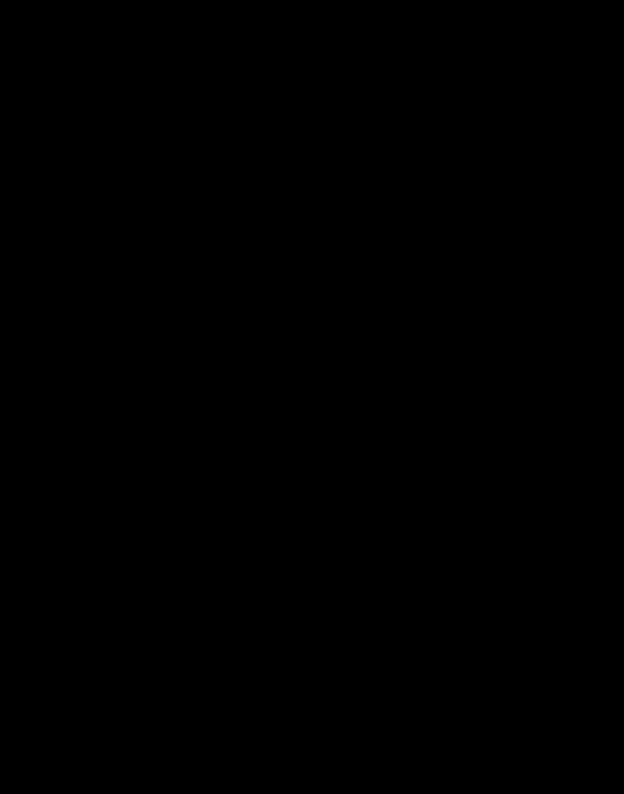
**FIG.2:** RMS on-state current versus case temperature

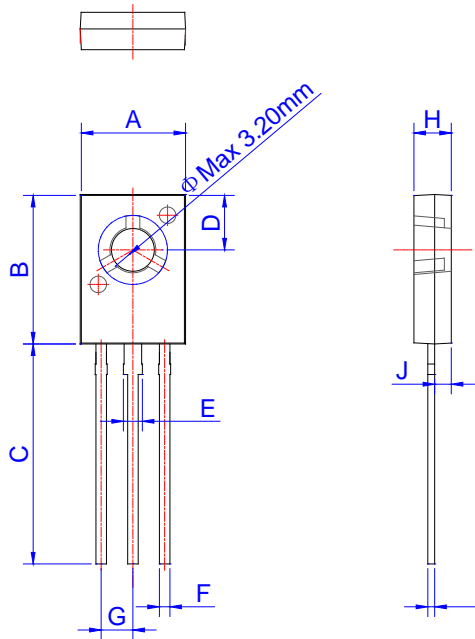


**FIG.4:** On-state characteristics

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



Order code	Voltage $V_{DRM}/V_{RRM}$ (V)	IGT )	Package	Base qty. (pcs)	Delivery mode
			TO-126	500	Bulk Pack
					



Ref.	Dimensions					
	Millimeters			Inches		
	Min.	Typ.	Max.	Min.	Typ.	Max.
A	7.40		7.80	0.291		0.307
B	10.6		11.2	0.417		0.441
C	15.3		16.3	0.602		0.642
D	3.90		4.10	0.154		0.161
E	1.17		1.47	0.046		0.058
F	0.66		0.86	0.026		0.034
G	2.15		2.45	0.085		0.096
H	2.50		2.90	0.098		0.114
J	1.10		1.50	0.043		0.059
K	0.45		0.60	0.018		0.024

PACKAGE	OUTLINE	BAG (PCS)	INNER BOX (PCS)	CARTON BOX (PCS)
TO-126	Bulk Pack	500	2,000	10,000

Information furnished in this document is believed to be accurate and reliable.  
However, Jiangsu JieJie Microelectronics Co., Ltd. assumes no responsibility for the