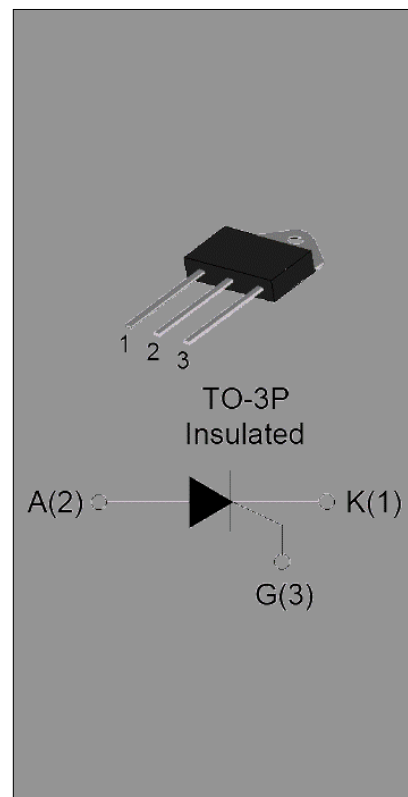




^ Z / W d / K E W

With high ability to withstand the shock loading of large current, JCT1640Z SCR 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, JCT1640Z provides a rated insulation voltage of 2500 V<sub>RMS</sub>, complying with UL standards (File ref: E252906). Package TO-3P is RoHS compliant.



D / E & d h Z ^

Symbol	Value	Unit
I <sub>T(RMS)</sub>	40	A
V <sub>DRM</sub> /V <sub>RRM</sub>	1600	V
I <sub>GT</sub>	45	mA

^ K > h d D y / D h D Z d / E ' ^

Storage junction temperature range	T <sub>stg</sub>	-40-150	
Operating junction temperature range	T <sub>j</sub>	-40-125	
Repetitive peak off-state voltage (T <sub>j</sub> =25 °C)	V <sub>DRM</sub>	1600	V
Repetitive peak reverse voltage (T <sub>j</sub> =25 °C)	V <sub>RRM</sub>	1600	V
Average on-state current (T <sub>c</sub> 070 °C)	I <sub>T(AV)</sub>	25	A
RMS on-state current (T <sub>c</sub> 070 °C)	I <sub>T(RMS)</sub>	40	A
Non repetitive surge peak on-state current (t <sub>p</sub> =10ms, T <sub>j</sub> =25 °C)	I <sub>TSM</sub>	400	A
Non repetitive surge peak on-state current (t <sub>p</sub> =8.3ms, T <sub>j</sub> =25 °C)		430	
I <sup>2</sup> t value for fusing (t <sub>p</sub> =10ms, T <sub>j</sub> =25 °C)	I <sup>2</sup> t	800	A <sup>2</sup> s
Critical rate of rise of on-state current (I <sub>G</sub> =2 hI <sub>GT</sub> , f=100Hz, T <sub>j</sub> =125 °C)	di/dt	200	A/μs



Peak gate current ( $t_p=20\mu s$ , $T_j=125$ )	$I_{GM}$	10	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)	$V_{pp}$	1.2	kV

>  $dZ/ >$ ,  $Z d Z/25$  / unless otherwise specified)

$I_{GT}$	$V_D=12V R_L=33$	-	-	45	mA
$V_{GT}$		-	-	1	V
$V_{GD}$	$V_D=V_{DRM} T_j=125 R_L=3.3K$	0.2	-	-	V
$I_L$	$I_G=1.2I_{GT}$	-	-	150	mA
$I_H$	$I_T=500mA$	-	-	130	mA
$dV/dt$	$V_D=1070V$ Gate Open $T_j=125$	1500	-	-	V/ $\mu s$
$t_{on}$	$I_G=100mA I_A=1A I_R=100mA$ $T_j=25$	-	7	-	$\mu s$
$t_{off}$		-	120	-	

$\wedge d d/$ ,  $Z d Z/\wedge d/ \wedge$

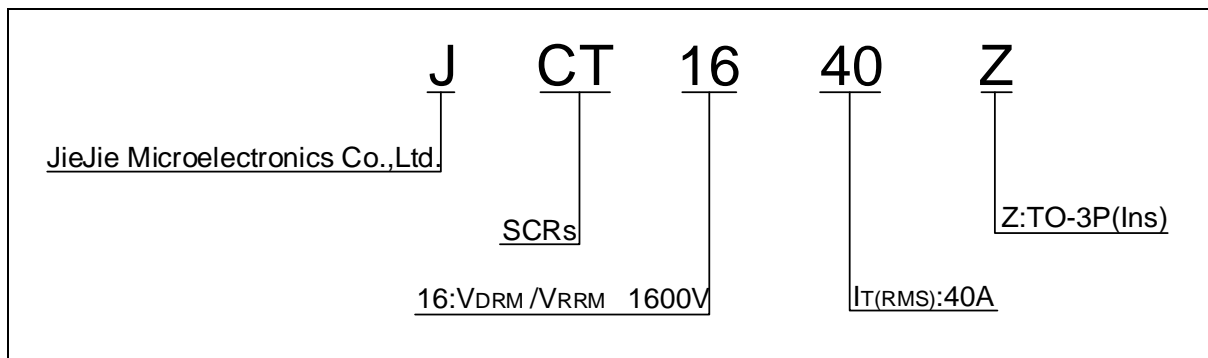
$V_{TM}$	$I_{TM}=80A t_p=380\mu s$	$T_j=25$	1.8	V
$V_{TO}$	Threshold voltage	$T_j=125$	0.78	V
$R_D$	Dynamic resistance	$T_j=125$	13	m
$I_{DRM}$	$V_D=V_{DRM} V_R=V_{RRM}$	$T_j=25$	10	$\mu A$
$I_{RRM}$		$T_j=125$	5	mA

$d, Z D > Z \wedge/\wedge d E \wedge$

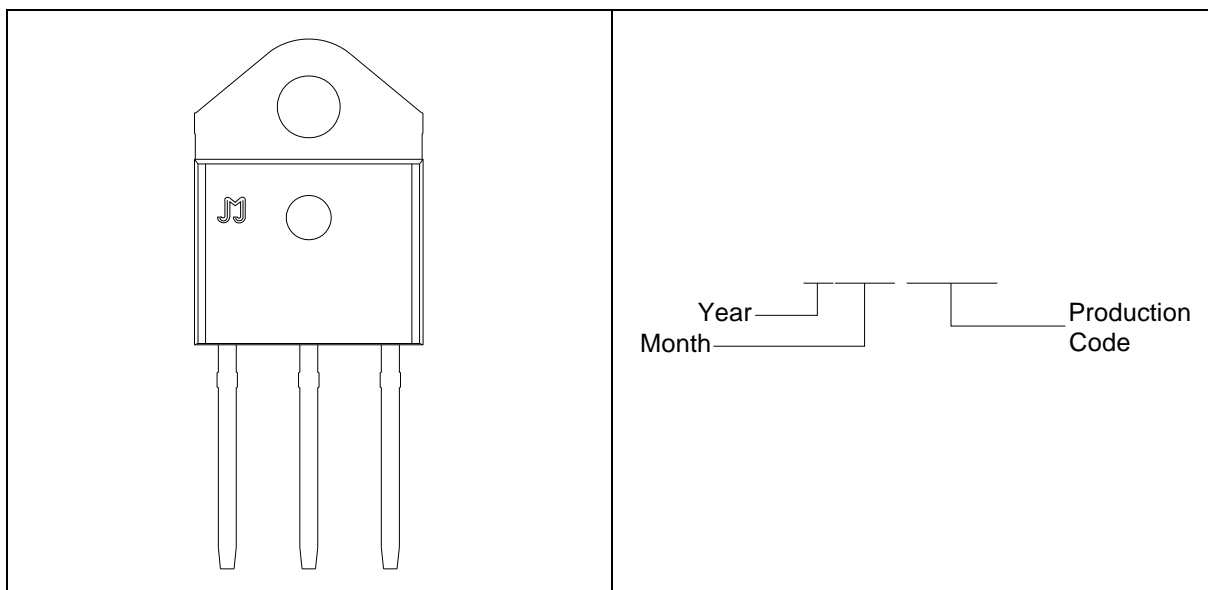
$R_{th(j-c)}$	junction to case(DC)	1.1	/W
$R_{th(j-a)}$	junction to ambient (DC)	55	/W



KZ Z/E' /E&KZD d/KE

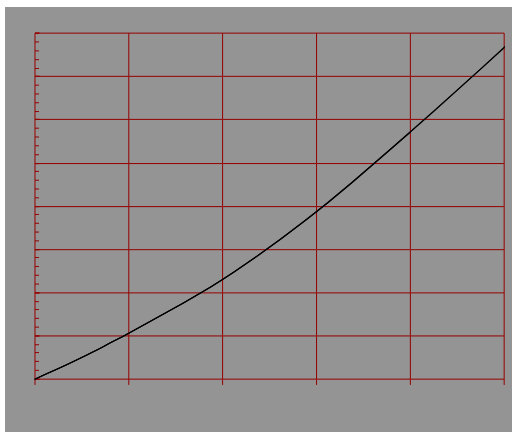


D Z</E'

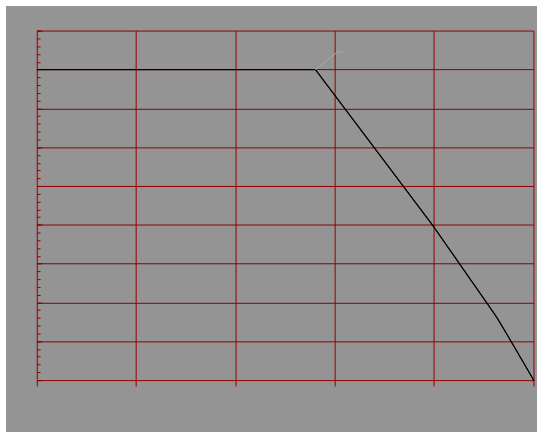




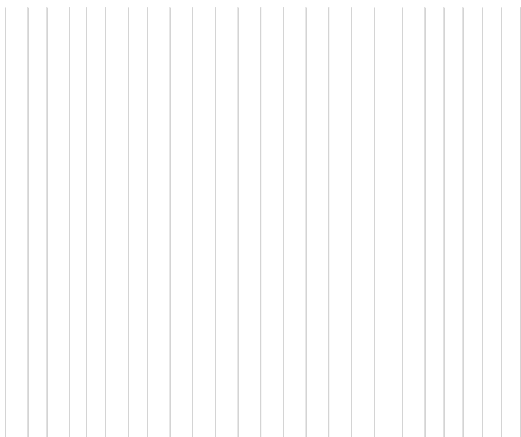
Maximum power dissipation versus  
RMS on-state current



RMS on-state current versus case  
temperature



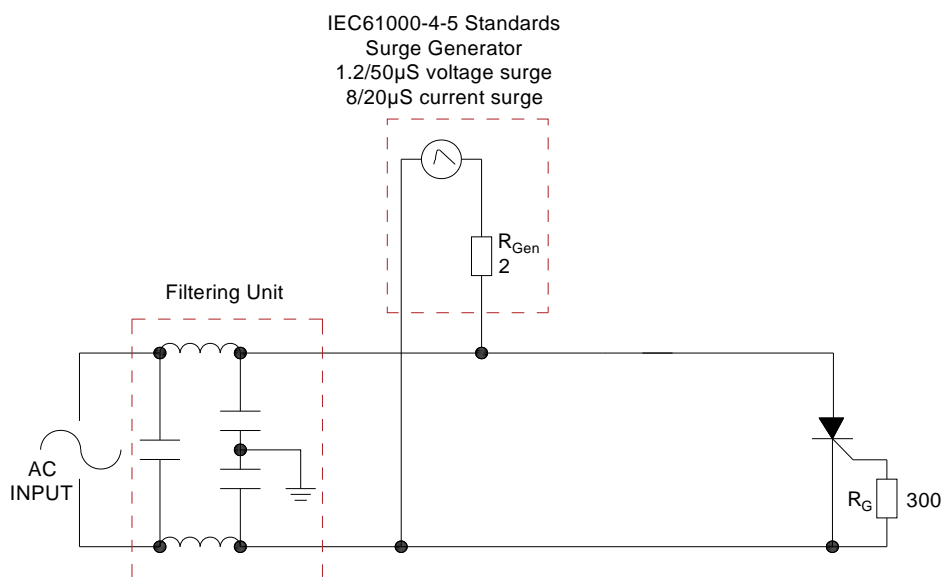
Surge peak on-state current versus  
number of cycles



On-state characteristics



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



^, W/E' E ^K> Z/E' W Z D d Z^

Refer to ÉInstructions for installation of plastic-sealed in-line power devices Êreleased by JieJie

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TEL




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KWWS ZZZ MMZG] FRP





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