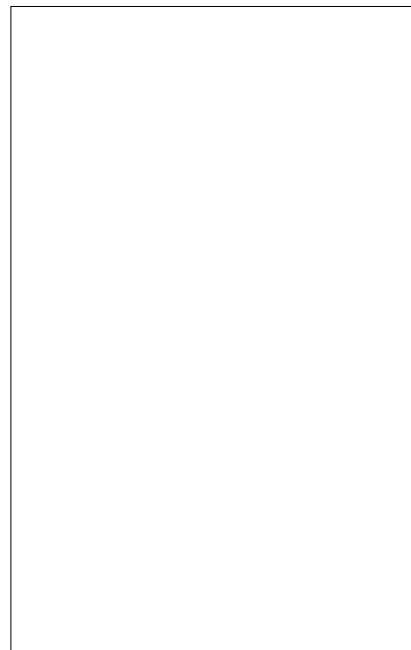




## JCT840EH 40A SCR

Rev.A.1.1

With high ability to withstand the shock loading of large current, JCT840EH 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. Package TO-263 is RoHS compliant.



Symbol	Value	Unit
$I_{T(RMS)}$	40	A
$V_{DRM}/V_{RRM}$	800	V
$I_{GT}$	35	mA

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 ( $T_j=25^\circ C$ )	$V_{DRM}$	800	V
Repetitive peak reverse voltage ( $T_j=25^\circ C$ )	$V_{RRM}$	800	V
Average on-state current ( $T_c = 129^\circ C$ )	$I_{T(AV)90-40}$		<del>C229</del>

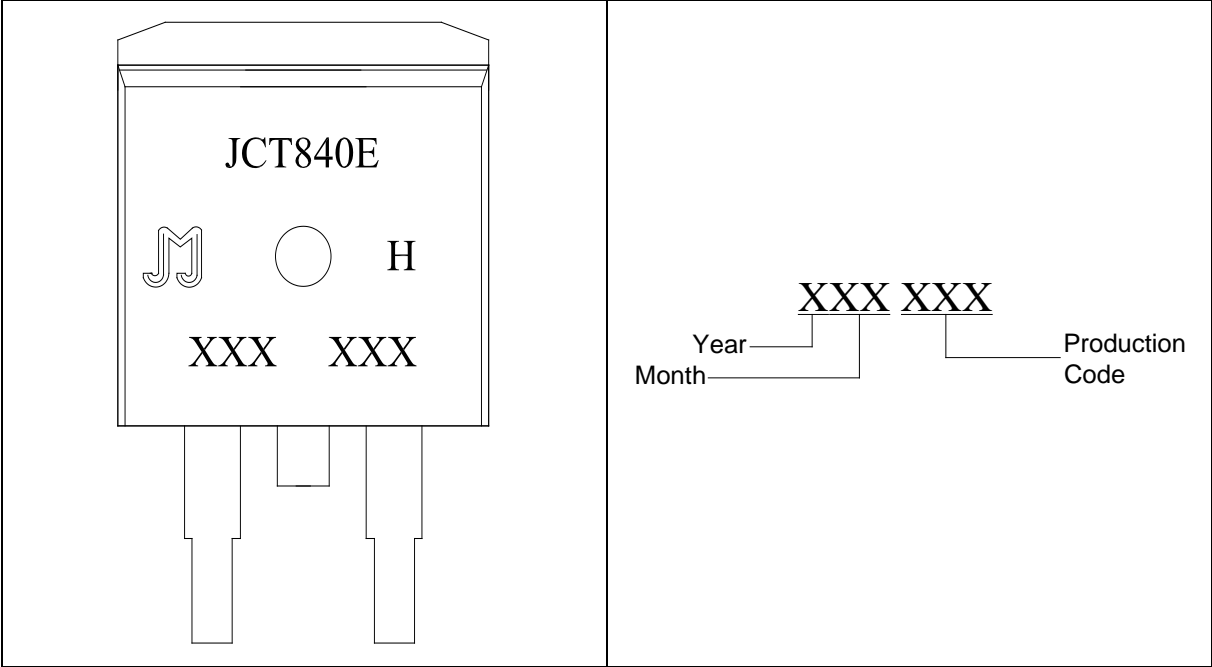
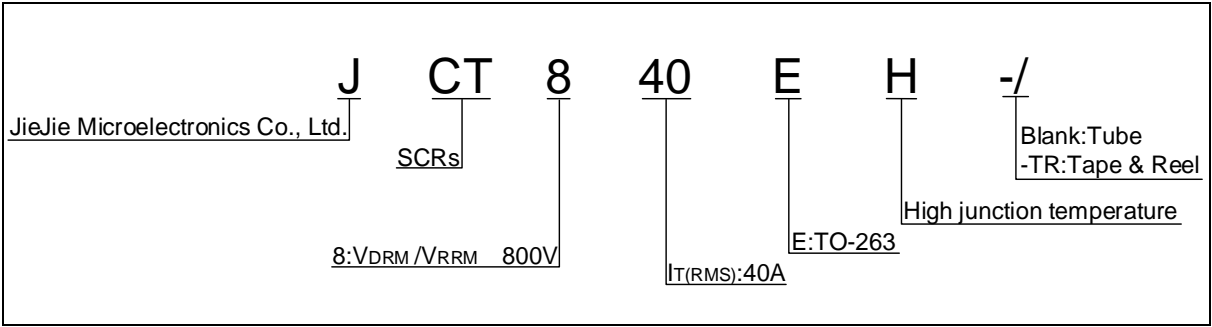
Peak gate power	$P_{GM}$	20	W
Peak pulse voltage ( $T_j=25$ ; non-repetitive,off-state;FIG.8)	$V_{pp}$	0.5	kV

( $T_j=25$  unless otherwise specified)

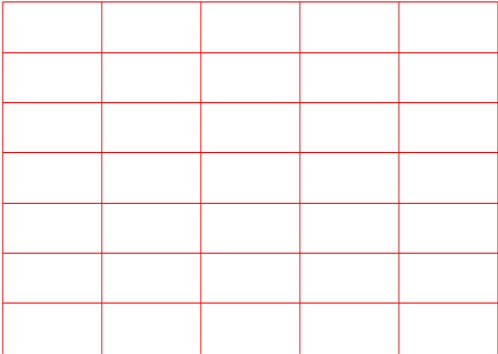
Symbol	Test Condition	Value			Unit
		MIN.	TYP.	MAX.	
$I_{GT}$	$V_D=12V R_L=33$	-	-	35	mA
$V_{GT}$		-	-	1	V
$V_{GD}$	$V_D=V_{DRM} T_j=150 R_L=3.3k$	0.2	-	-	V
$I_L$	$I_G=1.2I_{GT}$	-	-	80	mA
$I_H$	$I_T=500mA$	-	-	70	mA
dV/dt	$V_D=540V$ Gate Open $T_j=125$	1 00	-	-	V/ $\mu s$
	$V_D=540V$ Gate Open $T_j=150$	500	-	-	
$t_{on}$	$I_G=40mA I_A=400mA I_R=40mA$ $T_j=25$	-	2	-	$\mu s$
$t_{off}$		-	60	-	

Symbol	Parameter		Value(MAX.)	Unit
$V_{TM}$	$I_{TM}=80A t_p=380\mu s$	$T_j=25$	1.55	V
$V_{TO}$	Threshold voltage	$T_j=150$	0.65	V
$R_D$	Dynamic resistance	$T_j=150$	17	m
$I_{DRM}$	$V_D=V_{DRM} V_R=V_{RRM}$	$T_j=25$	5	$\mu A$
$I_{RRM}$		$T_j=150$	10	mA

Symbol	Parameter	Value	Unit
$R_{th(j-c)}$	junction to case (DC)	0.4	$^{\circ}W$
$R_{th(j-a)}$	junction to ambient (D e abi)		



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



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

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

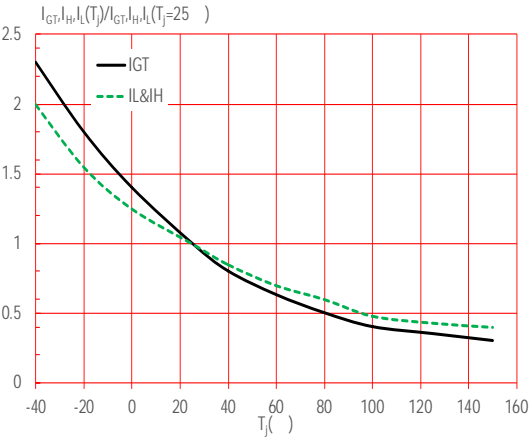


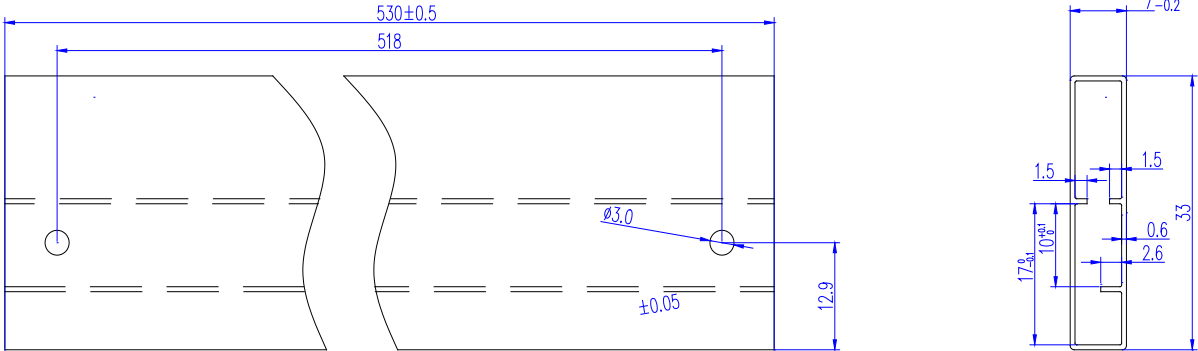
FIG.8 Test circuit for inductive and resistive loads to IEC-61000-4-5 standards.



TEL



Ref.	Dimensions					
	Millimeters			Inches		
	Min.	Typ.	Max.	Min.	Typ.	Max.
A						
B						
C						



Information in MC aThgdoc004 u>BDC enMC aT gbelev/BBMC aTo be ac004 c004 ure and r w (