

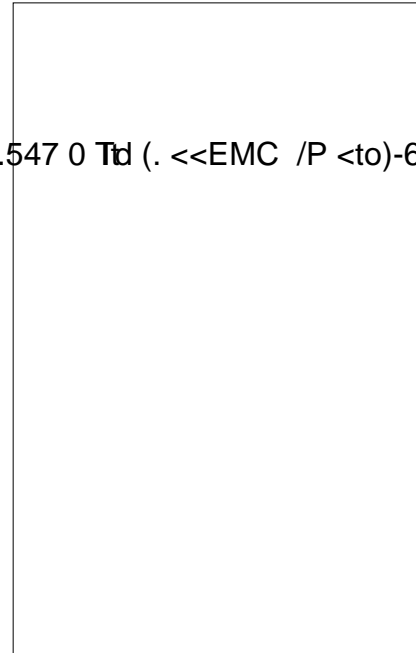


JCT1255SJ 55A SCR

Rev.A.1.0

DESCRIPTION:

With high ability to withstand the shock loading of large current, JCT1255SJ SCR provides high dV/dt rate with strong resistance to electromagnetic interference. It is especially recommended for use



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Peak gate power	P_{GM}	20	W
Peak pulse voltage ($T_j=25$; non-repetitive,off-state;FIG.7)	V_{pp}	0.7	kV

ELECTRICAL CHARACTERISTICS (unless otherwise specified)

Symbol	Test Condition	Value			Unit
		MIN.	TYP.	MAX.	
I_{GT}	$V_D=12V R_L=33$	-	-	50	mA
V_{GT}		-	-	1	V
V_{GD}	$V_D=V_{DRM} T_j=125 R_L=3.3K$	0.2	-	-	V
I_L	$I_G=1.2I_{GT}$	-	-	120	mA
I_H	$I_T=500mA$	-	-	100	mA
dV/dt	$V_D=800V$ Gate Open $T_j=125$	1200	-	-	V/s
t_{on}	$I_G=50mA I_A=500mA I_R=50mA$ $T_j=25$	-	4	-	s
t_{off}		-	130	-	

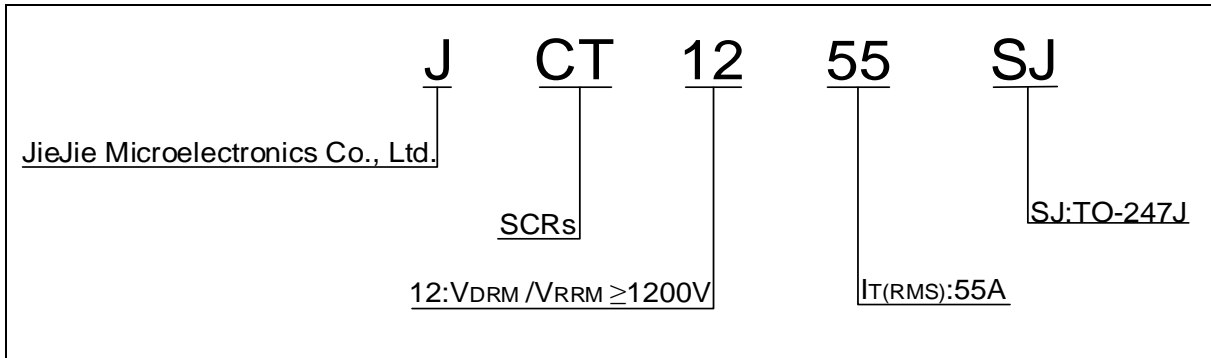
STATIC CHARACTERISTICS

Symbol	Parameter	Value(MAX.)	Unit	
V_{TM}	$I_{TM}=80A t_p=380 s$ $T_j=25$	1.5	V	
V_{TO}	Threshold voltage $T_j=125$	0.76	V	
R_D	Dynamic resistance $T_j=125$	8.5	P	
I_{DRM}	$V_D=V_{DRM} V_R=V_{RRM}$	$T_j=25$	10	A
I_{RRM}		$T_j=125$	6	mA

THERMAL RESISTANCES

Symbol	Parameter	Value	Unit
$R_{th(j-c)}$	junction to case(DC)	0.5	/W
$R_{th(j-a)}$	junction to ambient (DC)	50	/W

ORDERING INFORMATION



MARKING

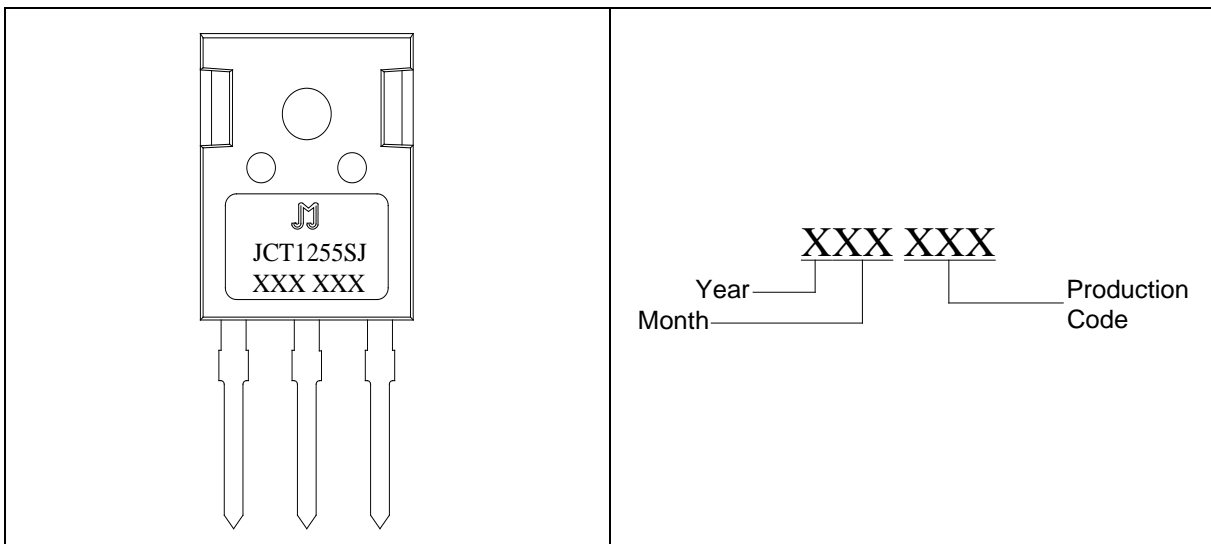


FIG.1 Maximum power dissipation versus RMS on-state current

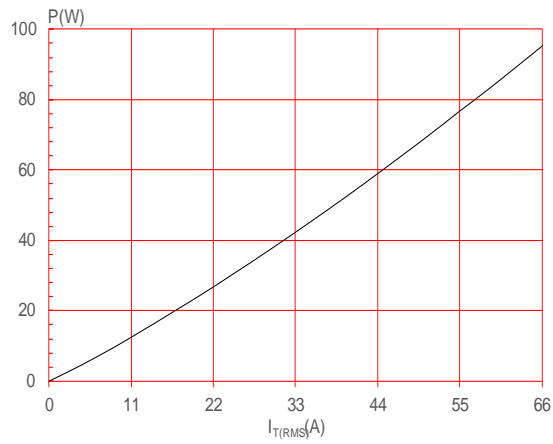


FIG.2: RMS on-state current versus case temperature

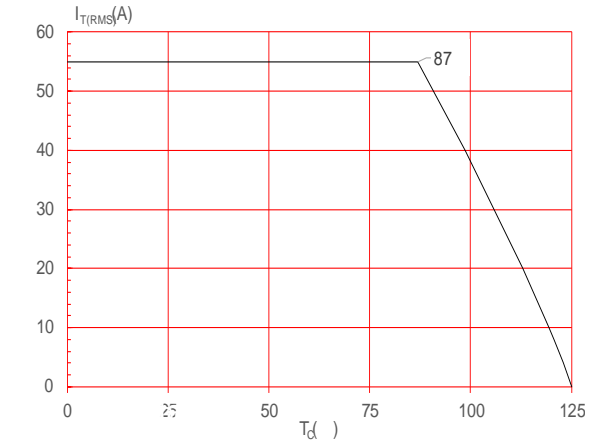


FIG.3: Surge peak on-state current versus number of cycles

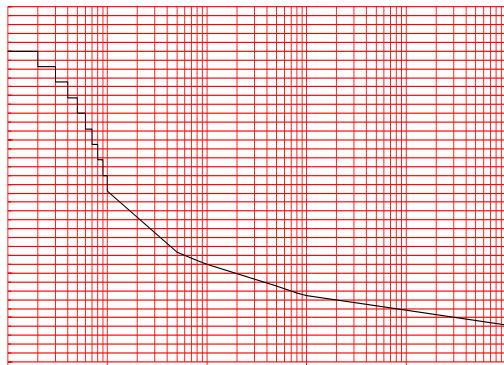


FIG.4: On-state characteristics

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



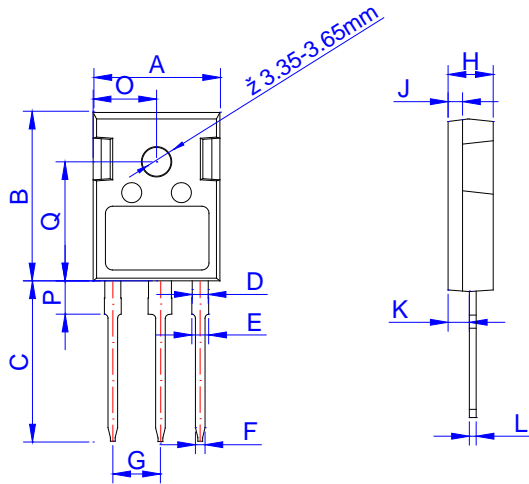
ORDERING INFORMATION

Order code	Voltage V_{DRM}/V_{RRM} (V)	IGT(mA)	Package	Base qty. (pcs)	Delivery mode
JCT1255SJ	1200	50	TO-247J	30	Tube

Document Revision History

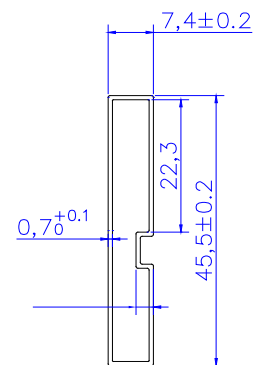
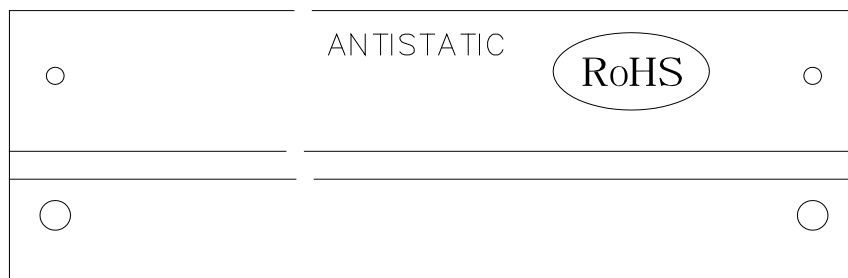
Date	Revision	Changes
Apr.13, 2023	A.1.0	Last update

PACKAGE MECHANICAL DATA




Ref.	Dimensions					
	Millimeters			Inches		
	Min.	Typ.	Max.	Min.	Typ.	Max.
A	15.50	15.80	16.10	0.610	0.622	0.634
B	20.80	21.00	21.20	0.819	0.827	0.835
C	19.70	20.00	20.30	0.776	0.787	0.799
D	1.80	2.00	2.20	0.071	0.079	0.087
E	1.90	2.10	2.30	0.075	0.083	0.091
F	1.00	1.20	1.40	0.039	0.047	0.055
G		5.44			0.214	
H	4.80	5.00	5.20	0.189	0.197	0.205
J	1.90	2.00	2.10	0.075	0.079	0.083
K	2.20	2.35	2.50	0.087	0.093	0.098
L	0.41	0.60	0.79	0.016	0.024	0.031
O		7.90			0.312	
P	4.05	4.15	4.25	0.016	0.024	0.031
Q		14.85			0.587	

DELIVERY MODE



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