

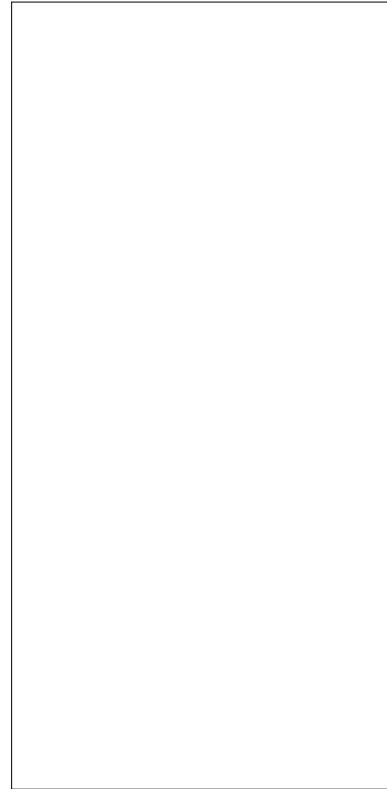


JCT820F 20A SCR

Rev.A.1.0

DESCRIPTION:

With high ability to withstand the shock loading of large current, JCT820F SCR provides high dV/dt rate with strong resistance to



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

ELECTRICAL CHARACTERISTICS ($T_j=25 \text{ }^\circ\text{C}$ 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}	$V_D=V_{DRM}$ $T_j=125 \text{ }^\circ\text{C}$ $R_L=3.3K$	0.2	-	-	V
I_L	$I_G=1.2I_{GT}$	-	-	60	mA
I_H	$I_T=500mA$	-	-	50	mA
dV/dt	$V_D=540V$ Gate Open $T_j=125 \text{ }^\circ\text{C}$	300	-	-	V/s
t_{on}	$I_G=40mA$ $I_A=400mA$ $I_R=40mA$ $T_j=25 \text{ }^\circ\text{C}$	-	5	-	s
t_{off}		-	70	-	

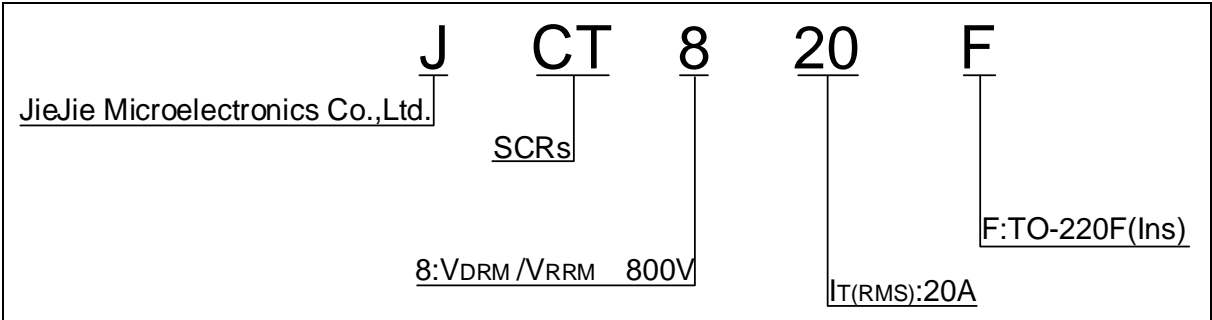
STATIC CHARACTERISTICS

Symbol	Parameter		Value(MAX.)	Unit
V_{TM}	$I_{TM}=40A$ $t_p=380 \text{ s}$	$T_j=25 \text{ }^\circ\text{C}$	1.55	V
V_{TO}	Threshold voltage	$T_j=125 \text{ }^\circ\text{C}$	0.74	V
R_D	Dynamic resistance	$T_j=125 \text{ }^\circ\text{C}$	20	
I_{DRM}	$V_D=V_{DRM}$ $V_R=V_{RRM}$	$T_j=25 \text{ }^\circ\text{C}$	5	A
I_{RRM}		$T_j=125 \text{ }^\circ\text{C}$	0.4	mA

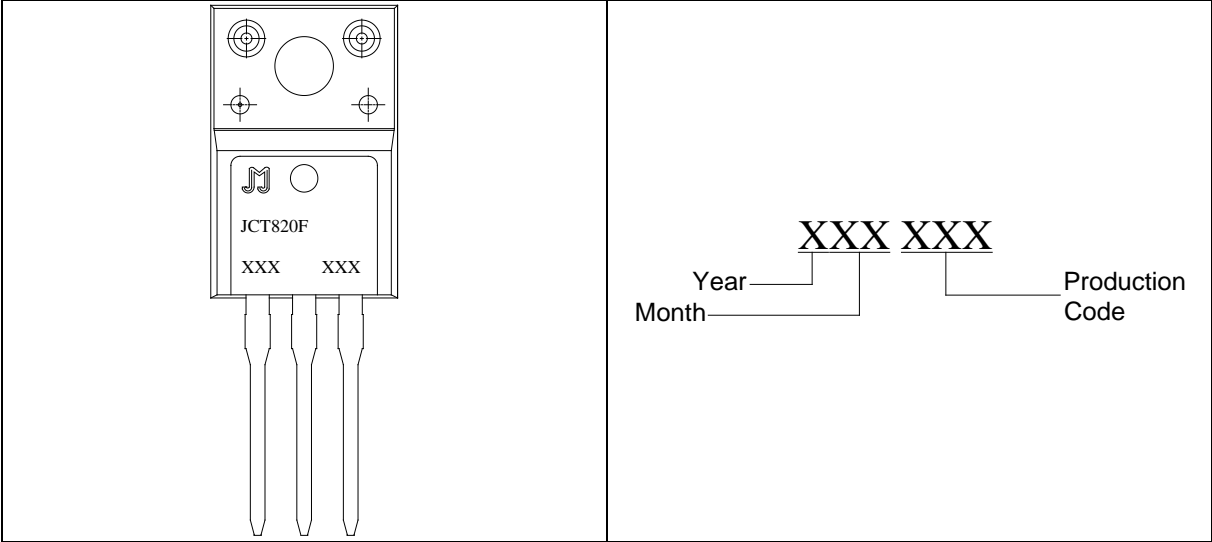
THERMAL RESISTANCES

Symbol	Parameter	Value	Unit
$R_{th(j-c)}$	junction to case(DC)	2.4	$^\circ\text{C/W}$
$R_{th(j-a)}$	junction to ambient (DC)	65	$^\circ\text{C/W}$

ORDERING INFORMATION



MARKING

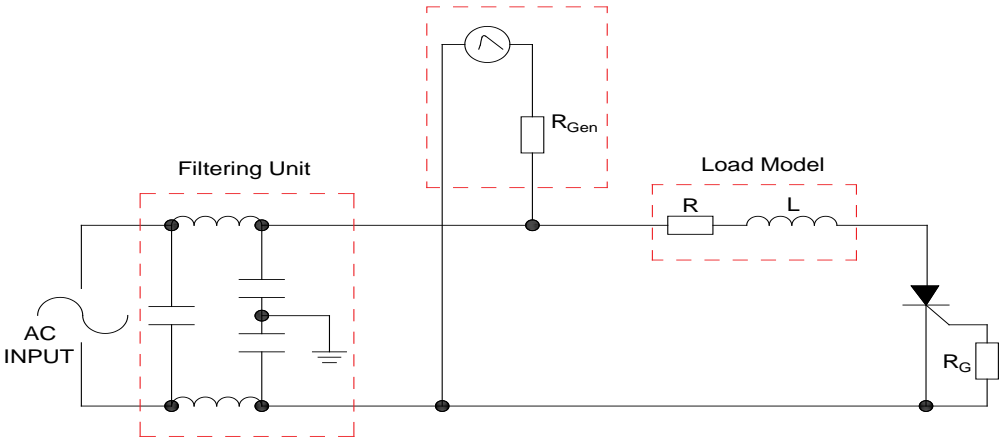


JCT820F

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

IEC61000-4-5 Standards
Surge Generator



SHAPING AND SOLDERING PARAMETERS

Refer to Instructions for installation of plastic-sealed in-line power devices released by JieJie

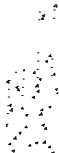
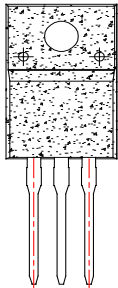
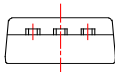
ORDERING INFORMATION

Order code	Voltage V_{DRM}/V_{RRM} (V)	IGT(mA)	Package	Base qty. (pcs)	Delivery mode
JCT820F	800	15	TO-220F(Ins)	50	Tube


Document Revision History

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

PACKAGE MECHANICAL DATA



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