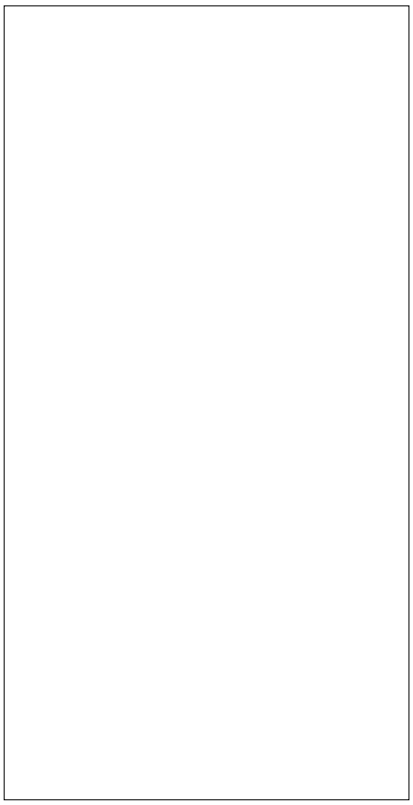
JCT640A 40A SCR

Rev.A.1.1

DESCRIPTION:

With high ability to withstand the shock loading of



Peak gate current (t_p=20μs , 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}	0.5	kV

ELECTRICAL CHARACTERISTICS (T_j=25 unless otherwise specified)

Symbol	Test Condition	Value			Unit
		MIN.	TYP.	MAX.	
I_{GT}	V_D=12V R_L=33Ω	-	-	35	mA
V_{GT}		-	-	1	V
V_{GD}	V_D=V_{DRM} T_j=125 R_L=3.3kΩ	0.2	-	-	V
I_L	I_G=1.2I_{GT}	-	-	80	mA
I_H	I_T=500mA	-	-	70	mA
dV/dt	V_D=400V Gate Open T_j=125	1200	-	-	V/μs
t_{on}	I_G=40mA I_A=400mA I_R=40mA T_j=25	-	2	-	μs
t_{off}		-	60	-	

STATIC CHARACTERISTICS

Symbol	Parameter		Value(MAX.)	Unit
V_{TM}	I_{TM}=80A t_p=380μs	T_j=25	1.55	V
V_{TO}	Threshold voltage	T_j=125	0.69	V
R_D	Dynamic resistance	T_j=125	16	mΩ
I_{DRM}	V_D=V_{DRM} V_R=V_{RRM}	T_j=25	5	μA
I_{RRM}		T_j=125	1	mA

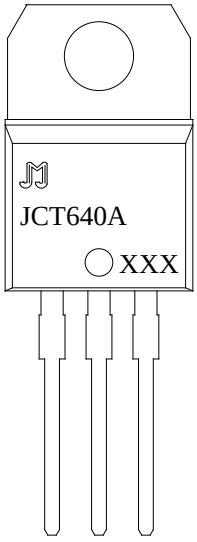
THERMAL RESISTANCES

Symbol	Parameter	Value	Unit
$R_{th(j-c)}$	junction to case (DC)	1.2	/W
$R_{th(j-a)}$	junction to ambient (DC)	60	/W

ORDERING INFORMATION

J	CT	6	40	A
JieJie Microelectronics Co., Ltd.	SCRs	6:V_{DRM} /V_{RRM} 600V	$I_{T(RMS)}$:40A	A:TO-220A(Ins)

MARKING



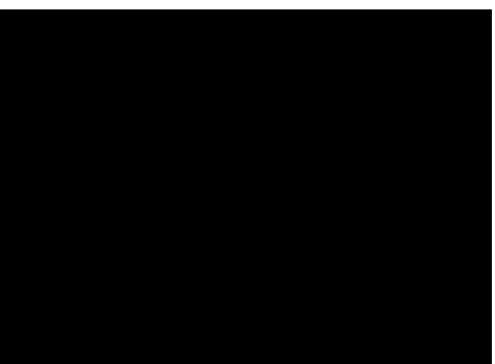
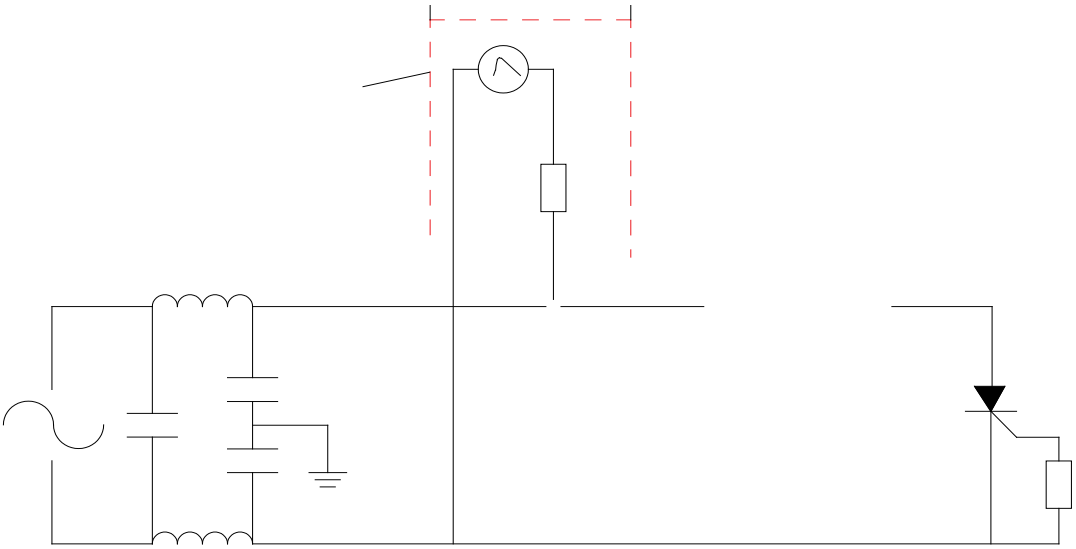


FIG.7 Test circuit for inductive and resistive loads to IEC-61000-4-5 standards.



ORDERING INFORMATION

Order code	Voltage V_{DRM}/V_{RRM} (V)	IGT(mA)	Package	Base qty. (pcs)	Delivery mode
JCT640A	600	35	TO-220A(Ins)	50	Tube

Document Revision History

Date	Revision	Changes
Apr.13, 2023	A.1.0	Last update
Oct.11, 2025	A.1.1	Revise PACKAGE MECHANICAL DATA

PACKAGE MECHANICAL DATA

