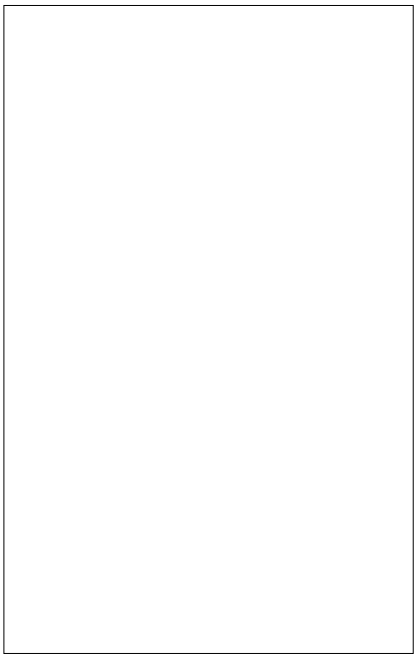
JCT640EH 40A SCR

Rev.A.1.1

DESCRIPTION:

With high ability to withstand the shock loading of large current, JCT640EH 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.



MAIN FEATURES

Symbol	Value	Unit
$I_{T(RMS)}$	40	A
V_{DRM}/V_{RRM}	600	V
I_{GT}	≤35	mA

ABSOLUTE MAXIMUM RATINGS

Parameter	Symbol	Value	Unit
Storage junction temperature range	T_{stg}	-40-150	

Peak gate power	P_{GM}	20	W
Peak pulse voltage (T_j=25 ; non-repetitive,off-state;FIG.8)	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=150 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	1 00	-	-	V/μs
	V_D=400V Gate Open T_j=150	00	-	-	
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 CTE1 1 TfS2 c

ORDERING INFORMATION

J CT 6 40 E H -/

JieJie Microelectronics Co., Ltd.

SCRs

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

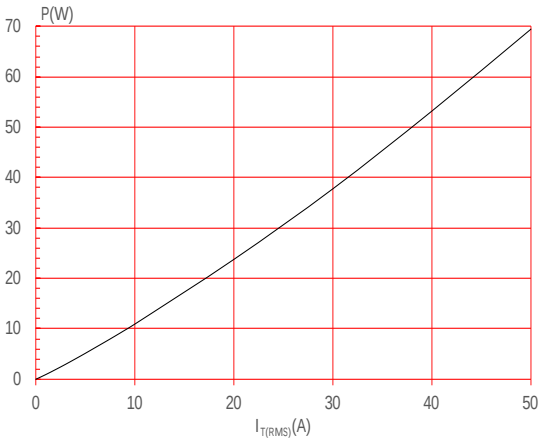


FIG.2: RMS on-state current versus case temperature

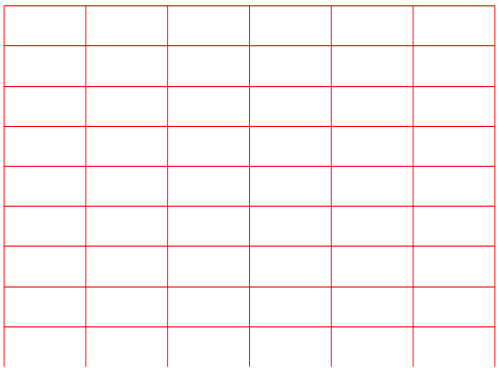
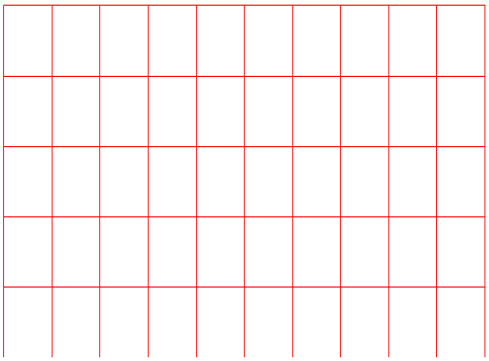


FIG.7: Relative variations of gate trigger current, holding current and latching current versus junction temperature



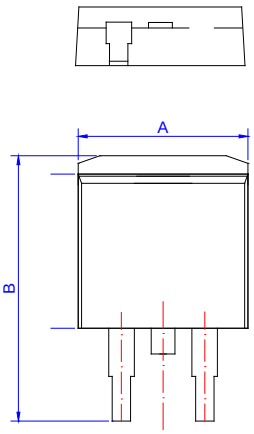
ORDERING INFORMATION

Order code	Voltage V_{DRM}/V_{RRM} (V)	IGT(mA)	Package	Base qty. (pcs)	Delivery mode
JCT640EH	600	35	TO-263	50	Tube
JCT640EH-TR				800	Tape & Reel

Document Revision History

Date	Revision	Changes
Jun.13, 2023	A.1.0	Last update
Oct.16, 2025	A.1.1	Revise PACKAGE MECHANICAL DATA

PACKAGE MECHANICAL DATA



Ref.	Dimensions					
	Millimeters			Inches		
	Min.	Typ.	Max.	Min.	Typ.	Max.
A	9.90		10.20	0.390		0.402
B	14.70		15.80	0.579		0.622
C	9.40		9.60	0.370		0.378
D	2.40			0.094		
E	1.20		1.50	0.047		0.059
F	0.75		0.85	0.029		0.033

DELIVERY MODE

