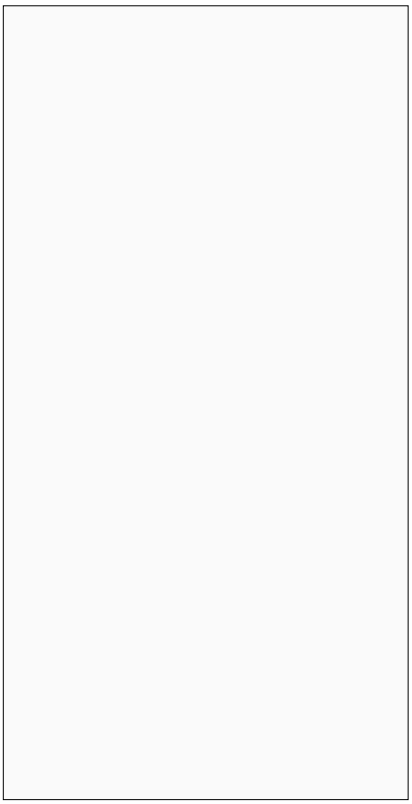
JCT840FH 40A SCR

Rev.A.1.1

With high ability to withstand the shock loading of large current, JCT840FH 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. From all three terminals to external heatsink,JCT840FH provides a rated insulation voltage of 2000 $V_{RMS,}$ complying with UL standards (File ref: E252906). Package TO-220F is RoHS compliant.



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)	V_{DRM}	800	V
Repetitive peak reverse voltage (T_j=25)	V_{RRM}	800	V
Average on-state current (T_C 13)	$I_{T(AV)}$	25	A

Peak gate current (t_p=20μs , T_j=150)	I_{GM}	10	A
Average gate power dissipation (T_j=150)	$P_{G(AV)}$	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

(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=540V Gate Open T_j=125	1 00	-	-	V/μs
	V_D=540V Gate Open T_j=150	500	-	-	
t_{on}	I_G=40mA I_A=400mA I_R=40mA T_j=25	-	2	-	μs
t_{off}		-	60	-	

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=150	0.65	V
R_D	Dynamic resistance	T_j=150	17	mΩ

$I_{DRMe\_}$ $e\_$ D R ee M

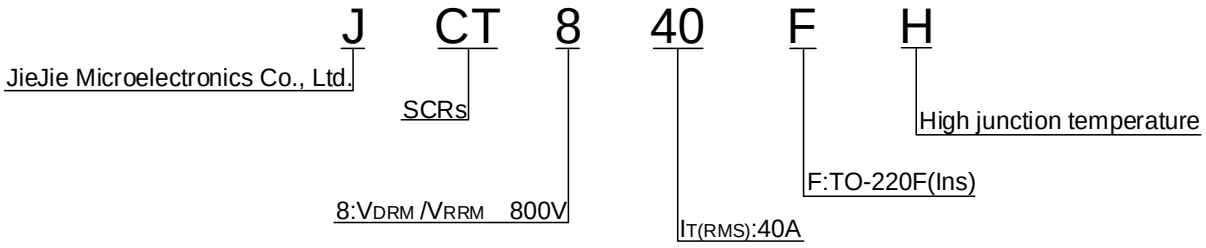

J
CT
8
40
F
H
JieJie Microelectronics Co., Ltd.
SCRs
8:VDRM /VRRM 800V
IT(RMS):40A
F:TO-220F(Ins)
High junction temperature

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

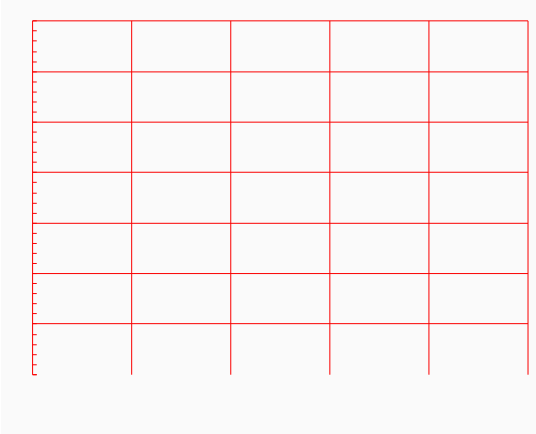
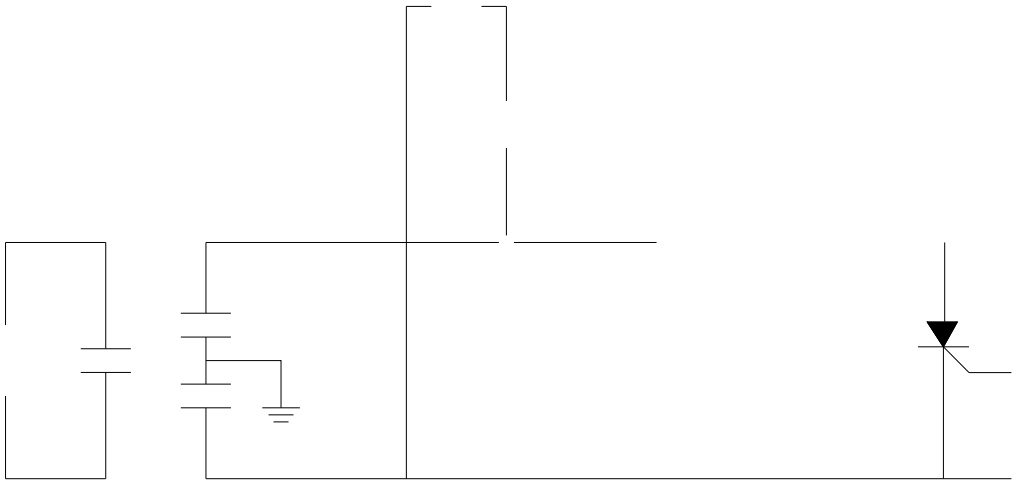


FIG.2: RMS on-state current versus case temperature

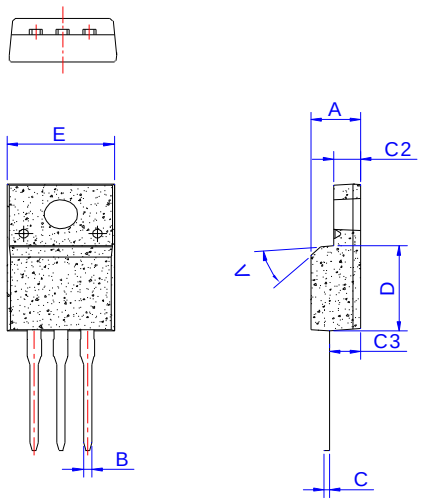
FIG.7 Test circuit for inductive and resistive loads to IEC-61000-4-5 standards. ^ þ



Order code	Voltage V_{DRM}/V_{RRM} (V)	IGT(mA)	Package	Base qty. (pcs)	Delivery mode
JCT840FH	800	35	TO-220F(Ins)	50	Tube

Document Revision History

Date	Revision	Changes
Jun.15, 2023	A.1.0	Last update
Oct.16, 2025	A.1.1	Revise PACKAGE MECHANICAL DATA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