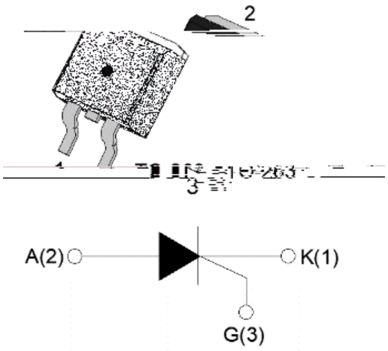
JCT855EH 55A SCR

Rev.A.1.1

DESCRIPTION:

With high ability to withstand the shock loading of large current, JCT855EH 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
$I_{T(RMS)}$	55	A
V_{DRM}/V_{RRM}	800	V
I_{GT}	≤15	mA

ABSOLUTE MAXIMUM RATINGS

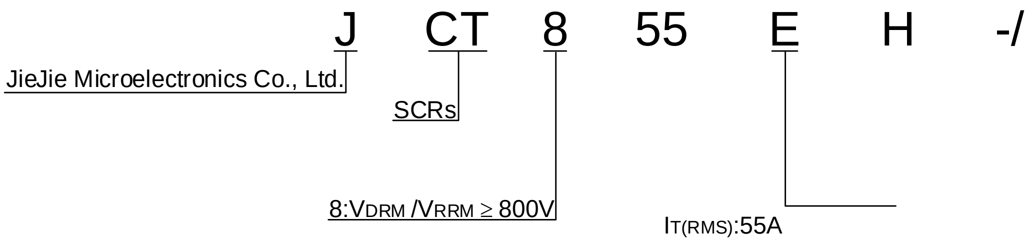
Parameter	Symbol	Value	Unit
Storage junction temperature range	T_{stg}	-40-150	
Operating junction temperature range	T_j	-40-150	
Repetitive peak off-state voltage (T_j=25)	V_{DRM}	800	V
Repetitive peak reverse voltage (T_j=25)	V_{RRM}	800	V
Average on-state current ($T_C \leq 126$)	$I_{T(AV)}$	35	A
RMS on-state current ($T_C \leq 126$)	$I_{T(RMS)}$	55	A
Non repetitive surge peak on-state current (t_p=10ms, T_j=25)	I_{TSM}	515	A
Non repetitive surge peak on-state current (t_p=8.3ms, T_j=25)		560	
I^2t value for fusing (t_p=10ms , T_j=25)	I^2t	1326	A^2s
Critical rate of rise of on-state current (I_G=2 I_{GT}, f=100Hz , T_j=150)	dI/dt	150	A/μs
Peak gate current (t_p=20μs , T_j=150)	I_{GM}	5	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.8)	V_{pp}	2.5	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	-	-	15	mA

ORDERING INFORMATION



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JieJie Microelectronics Co., Ltd.

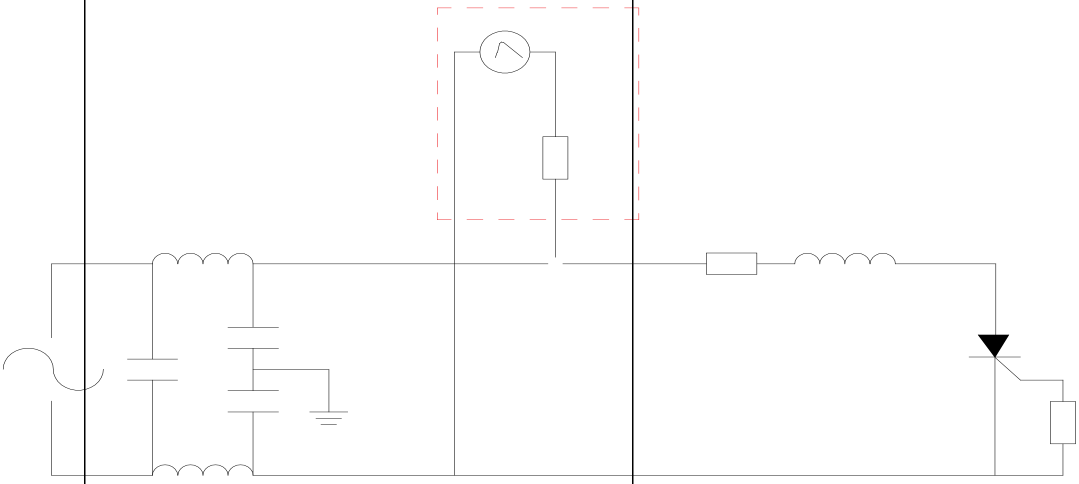
SCRs

8:V_{DRM} /V_{RRM} ≥ 800V

$I_{T(RMS)}$:55A

FIG.7: Relative variations of gate trigger current, holding current and latching current versus junction temperature1. 5

FIG.8 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
JCT855EH	**800**	**15**	**TO-263**	**50**	**Tube**
JCT855EH-TR				**800**	**Tape & Reel**

Document Revision History

Date	Revision	Changes
Jun.20, 2023	A.1.0	Last update
Oct.16, 2025		