

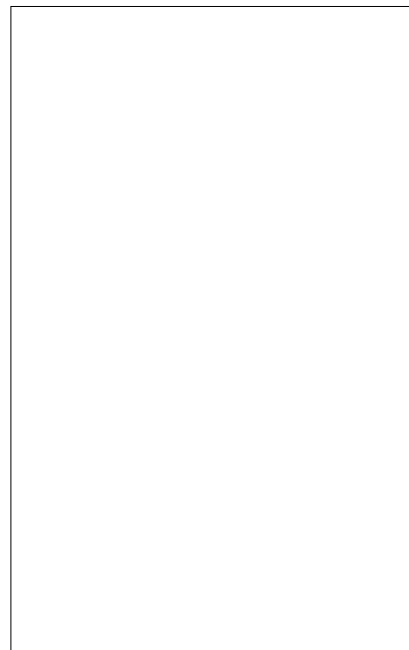


## JCT1225E 25A SCR

Rev.A.1.1

### DESCRIPTION:

With high ability to withstand the shock loading of large current, JCT1225E 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
$I_{T(RMS)}$	25	A
$V_{DRM}/V_{RRM}$	1200	V
$I_{GT}$	40	mA

### ABSOLUTE MAXIMUM RATINGS

Parameter	Symbol	Value	Unit
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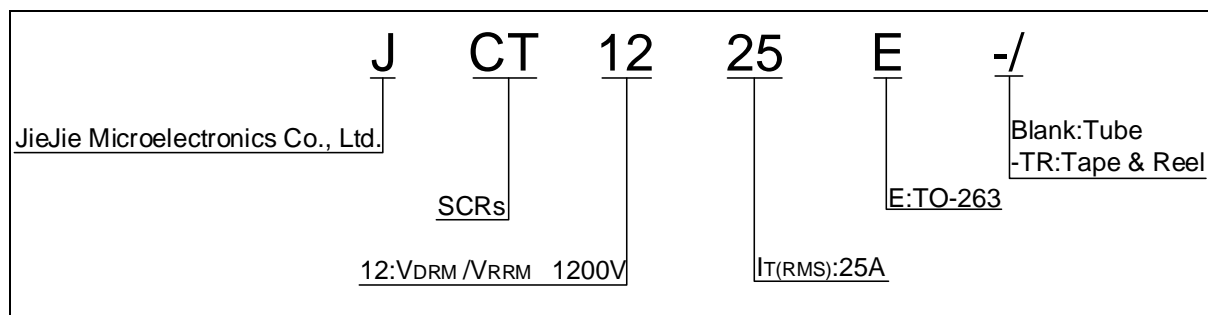
Storage Temperature Range: -55°C to 175°C  
 Peak Forward Current (100µs pulse width): 100A  
 Average Forward Current (100% duty cycle): 25A  
 Peak Reverse Current: 10mA  
 Peak Forward Voltage: 1.2V  
 Peak Reverse Voltage: 1200V  
 Peak Forward Power (100µs pulse width): 120W  
 Peak Reverse Power: 0.5W  
 Thermal Resistance (junction to case): 0.5°C/W  
 Thermal Resistance (junction to ambient): 100°C/W  
 Turn-on Time: 0.5µs  
 Turn-off Time: 0.5µs  
 Gate Current: 40mA  
 Gate Voltage: 1.2V  
 Holding Current: 25A  
 Latching Current: 25A  
 Repetitive Peak Forward Current: 100A  
 Repetitive Peak Forward Power: 120W  
 Repetitive Peak Reverse Current: 10mA  
 Repetitive Peak Reverse Voltage: 1200V  
 Repetitive Peak Forward Power: 120W  
 Repetitive Peak Reverse Power: 0.5W  
 Turn-on Time: 0.5µs  
 Turn-off Time: 0.5µs  
 Gate Current: 40mA  
 Gate Voltage: 1.2V  
 Holding Current: 25A  
 Latching Current: 25A

Peak gate power	$P_{GM}$	20	W
Peak pulse voltage ( $T_j=25$ ; non-repetitive,off-state;FIG.8)	$V_{pp}$	1	kV

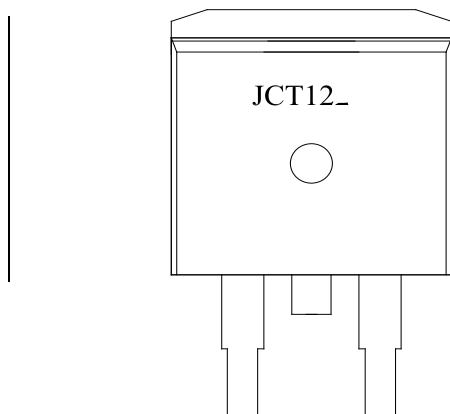
**ELECTRICAL CHARACTERISTICS** ( $T_j=25$  unless otherwise specified)

Symbol	Test Condition	Value			Unit
		MIN.	TYP.	MAX.	
$I_{GT}$	$V_D=12V$ $R_L=33$	-	-	40	mA
$V_{GT}$		-	-	1	V

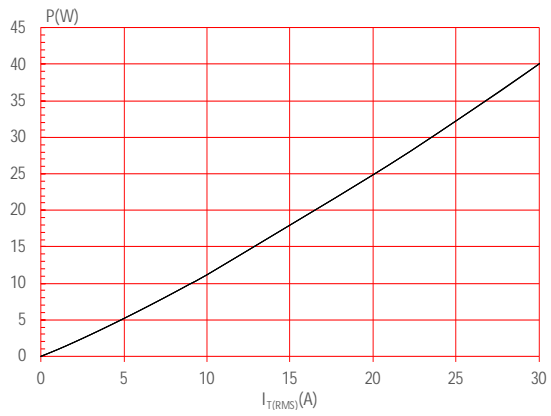
## ORDERING INFORMATION



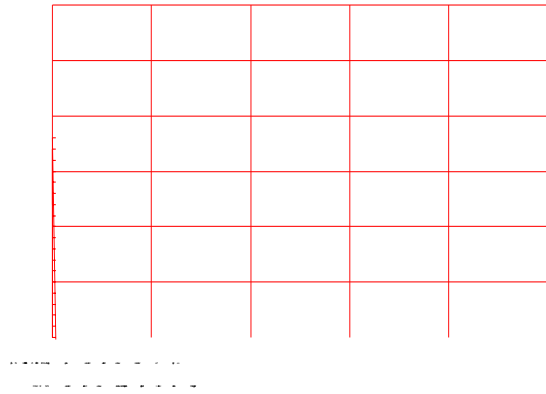
## MARKING



**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

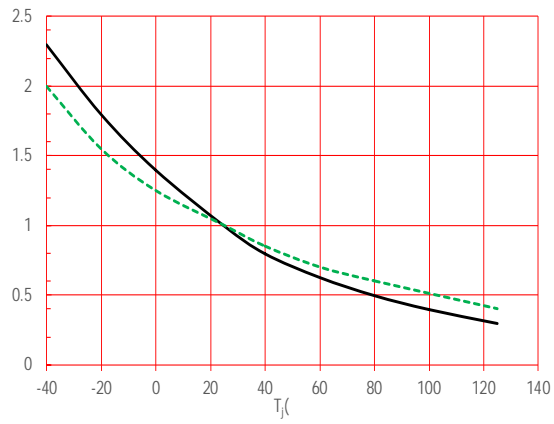
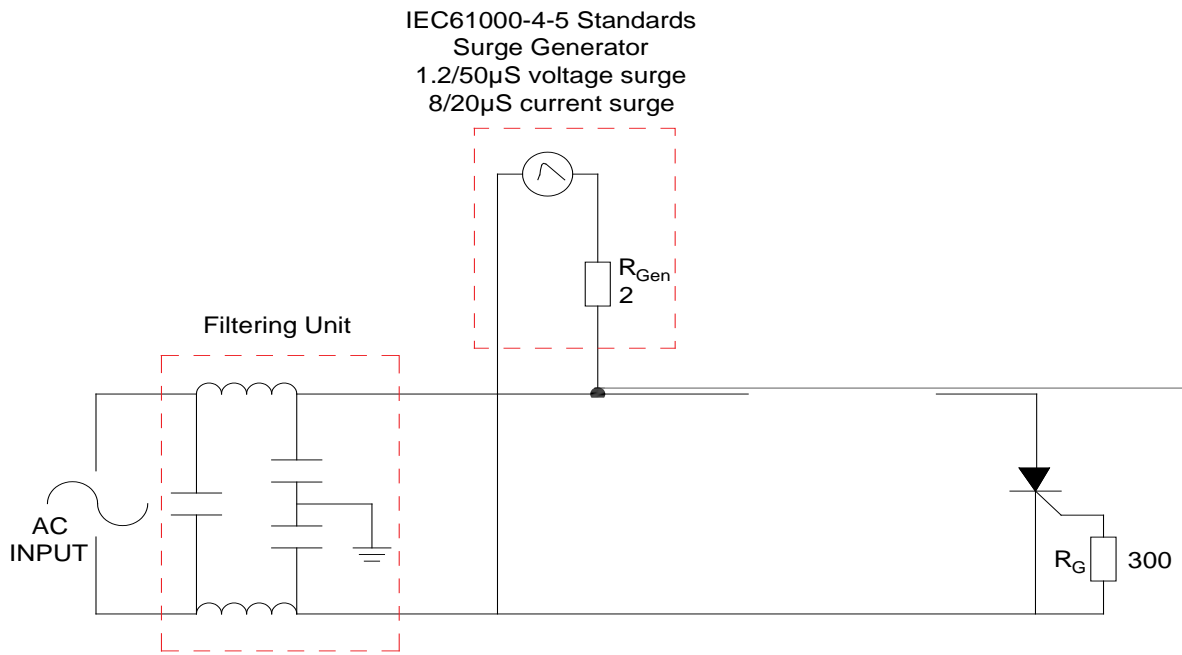


FIG. 8 Test circuit for Inductive and resistive loads, IEC-61000-4-5 Standards, PHNò'VRh ~dD



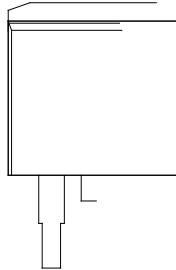
**ORDERING INFORMATION**

Order code	Voltage $V_{DRM}/V_{RRM}$ (V)	IGT(mA)	Package	Base qty. (pcs)	Delivery mode
JCT1225E	1200	40	TO-263	50	Tube
JCT1225E-TR				800	Tape & Reel

**Document Revision History**

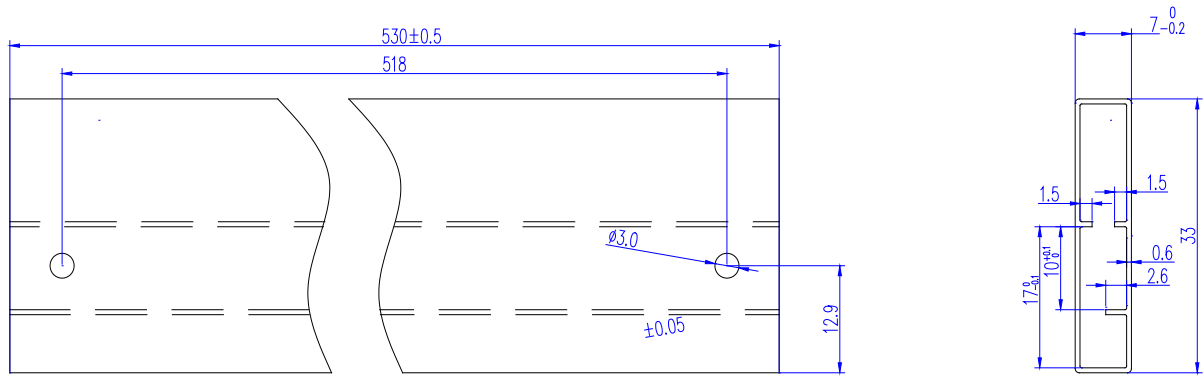
Date	Revision	Changes
Apr.13, 2023	A.1.0	Last update
Oct.16, 2025	A.1.1	Revise PACKAGE MECHANICAL DATA

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



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