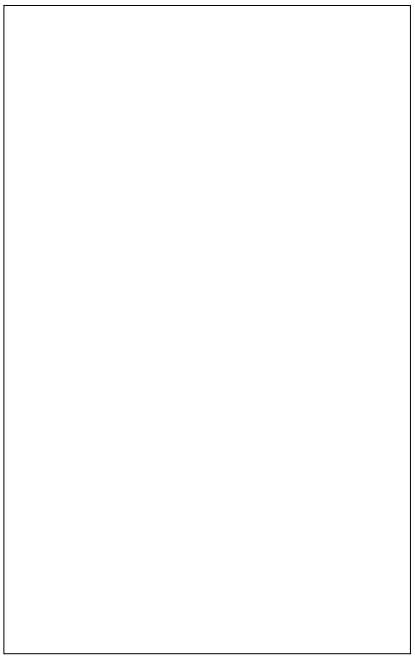
JCT612EH 12A SCR

Rev.A.1.1

DESCRIPTION:

With high ability to withstand the shock loading of large current, JCT612EH 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
$I_{T(RMS)}$	12	A
V_{DRM}/V_{RRM}	600	V
I_{GT}	”15	mA

ABSOLUTE MAXIMUM RATINGS

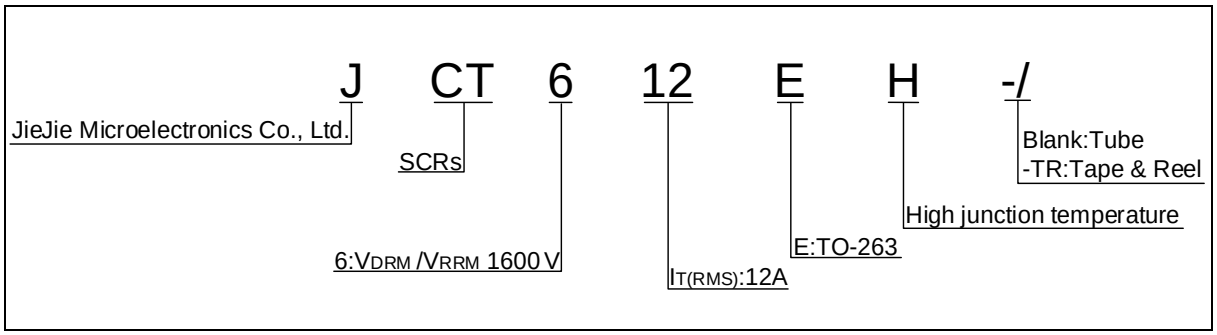
Parameter	Symbol	Value	Unit
Storage junction temperature range	T_{stg}	-40-150	
Operating junction temperature range	T_j	-40-150	
Repetitive peak off-state voltage (T_j=25)	V_{DRM}	600	V
Repetitive peak reverse voltage (T_j=25)	V_{RRM}	600	V
Average on-state current (T_C 0 133)	$I_{T(AV)}$	7.6	A
RMS on-state current (T_C 01 33)	$I_{T(RMS)}$	12	A
Non repetitive surge peak on-state current (t_p=10ms, T_j=25)	I_{TSM}	140	A
Non repetitive surge peak on-state current (t_p=8.3ms, T_j=25)		154	
I^2t value for fusing (t_p=10ms , T_j=25)	I^2t	98	A^2s
Critical rate of rise of on-state current (I_G=2× I_{GT}, f=100Hz , T_j=150)	dI/dt	150	A s

Peak gate current (t_p

Peak gate power	P_{GM}	10	W
Peak pulse voltage (T_j=25 ; non-repetitive,off-state;FIG.8)	V_{pp}	0.5	kV

ELECTRICAL CHARACTERISTICS (T_j)

ORDERING INFORMATION



MARKING

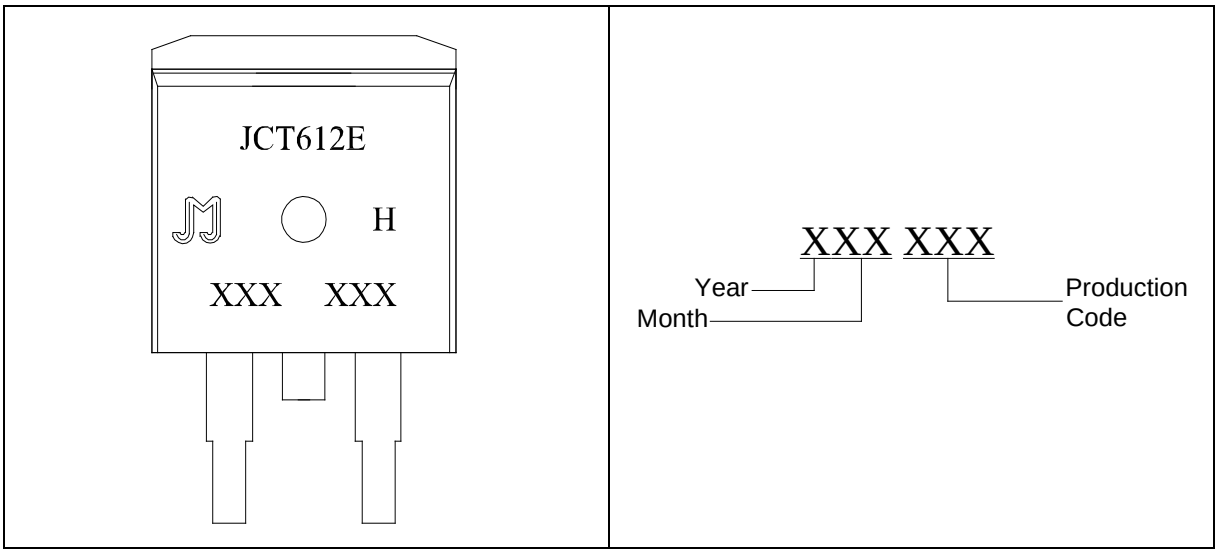
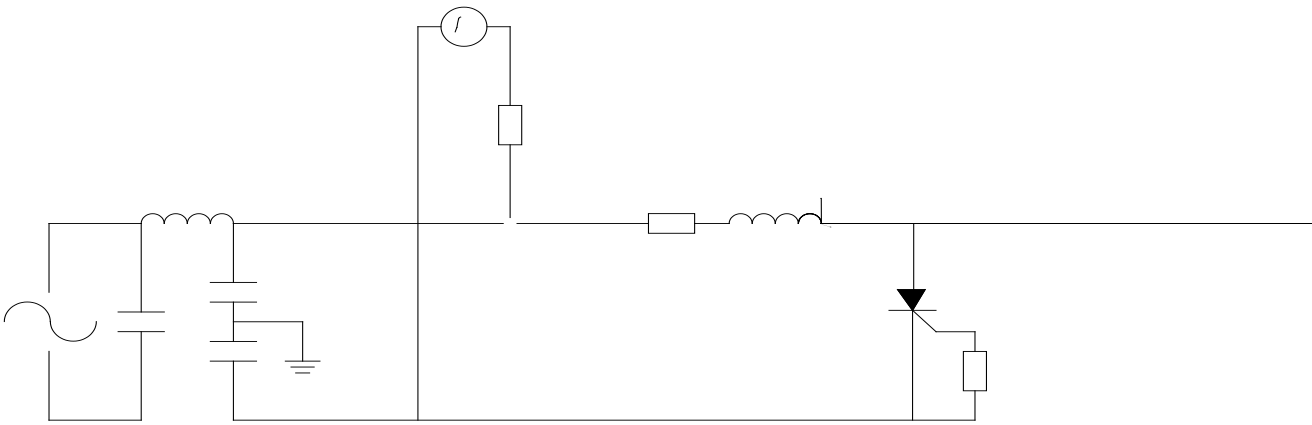


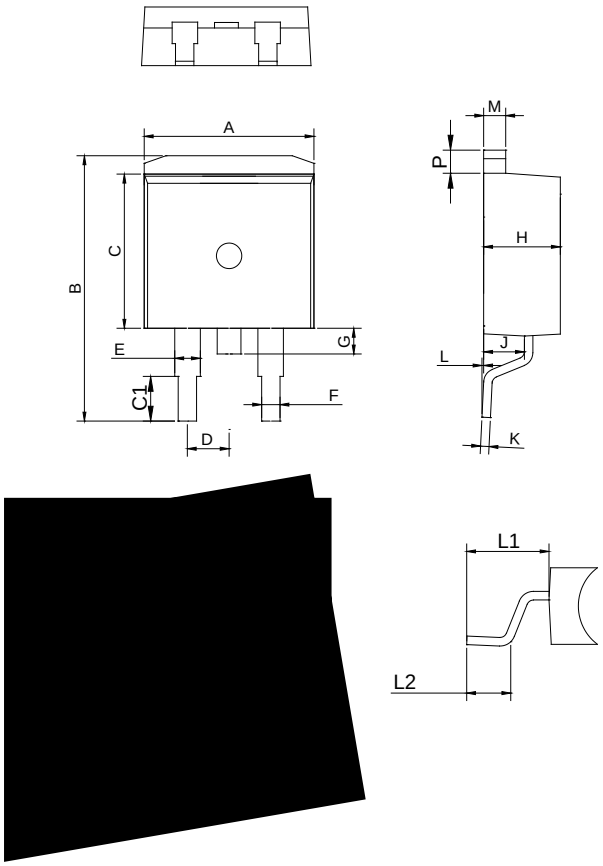
FIG.1: Maximum power dissipation versus RMS on-state current

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

FIG.8 ÖTest circuit for inductive and resistive loads to IEC-61000-4-5 standards.



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		2.70	0.094		0.106
E	1.20		1.50	0.047		0.059
F	0.75		0.85	0.029		0.033