

**JCT1208E 8A SCR**

Rev.A.1.1

DESCRIPTION:

With high ability to withstand the shock loading of large current, JCT1208E provides high dV/dt rate with strong resistance to electromagnetic interference. It is especially recommended for use on hair straightener motorcycle voltage regulator etc. Package TO-263 is RoHS compliant.

MAIN FEATURES

Symbol	Value	Unit
$I_{T(RMS)}$	8	A
V_{DRM}/V_{RRM}	1200	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	-40-125	
Repetitive peak off-state voltage ($T_j=25^\circ\text{C}$)	V_{DRM}	1200	V
Repetitive peak reverse voltage ($T_j=25^\circ\text{C}$)	V_{RRM}	1200	V
Average on-state current ($T_c \leq 92^\circ\text{C}$)	$I_{T(AV)}$	5	A
RMS on-state current ($T_c \leq 92^\circ\text{C}$)	$I_{T(RMS)}$	8	A
Non repetitive surge peak on-state current ($t_p=10\text{ms}$, $T_j=25^\circ\text{C}$)	I_{TSM}	85	A
Non repetitive surge peak on-state current ($t_p=8.3\text{ms}$, $T_j=25^\circ\text{C}$)		94	
I^2t value for fusing ($t_p=10\text{ms}$, $T_j=25^\circ\text{C}$)	I^2t	36	A^2s

Critical rate of rise of on-state current

Peak gate power	P_{GM}	5	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}	$V_D=12V$ $R_L=33\Omega$	-	-	15	mA
V_{GT}		-	-	1	V
V_{GD}	$V_D=V_{DRM}$ $T_j=125$ $R_L=3.3k\Omega$	0.2	-	-	V
I_L	$I_G=1.2I_{GT}$	-	-	40	mA
I_H	$I_T=500mA$	-	-	30	mA
dV/dt	$V_D=800V$ Gate Open $T_j=125$	1000	-	-	V/ μs
t_{on}	$I_G=20mA$ $I_A=200mA$ $I_R=20mA$ $T_j=25$	-	5	-	μs
t_{off}		-	100	-	μs

STATIC CHARACTERISTICS

Symbol	Parameter		Value(MAX.)	Unit
V_{TM}	$I_{TM}=16A$ $t_p=380\mu s$	$T_j=25$	1.6	V
V_{TO}	Threshold voltage	$T_j=125$	0.8	V
R_D	Dynamic resistance	$T_j=125$	28	$m\Omega$
I_{DRM}	$V_D=V_{DRM}$ $V_R=V_{RRM}$	$T_j=25$	10	μA
I_{RRM}		$T_j=125$	1	mA

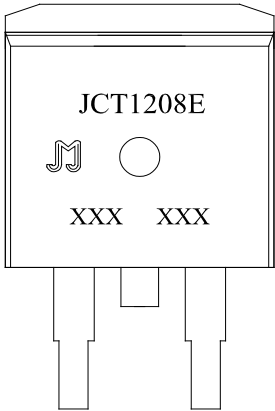
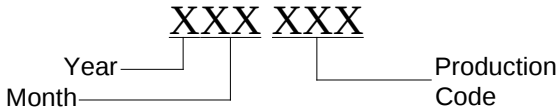
THERMAL RESISTANCES

Symbol	Parameter	Value	Unit
$R_{th(j-c)}$	junction to case (DC)	2.9	/W
$R_{th(j-a)}$	junction to ambient (DC, in free air, $S=1cm^2$)	60	/W

ORDERING INFORMATION

<u>J</u>	<u>CT</u>	<u>12</u>	<u>08</u>	<u>E</u>	<u>-/</u>
JieJie Microelectronics Co., Ltd.	SCRs			E:TO-263	Blank:Tube -TR:Tape & Reel
12:V _{DRM} /V _{RRM} ≥ 1200V			I _{T(RMS)} :8A		

MARKING

	
---	--

JCT1208E

J

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



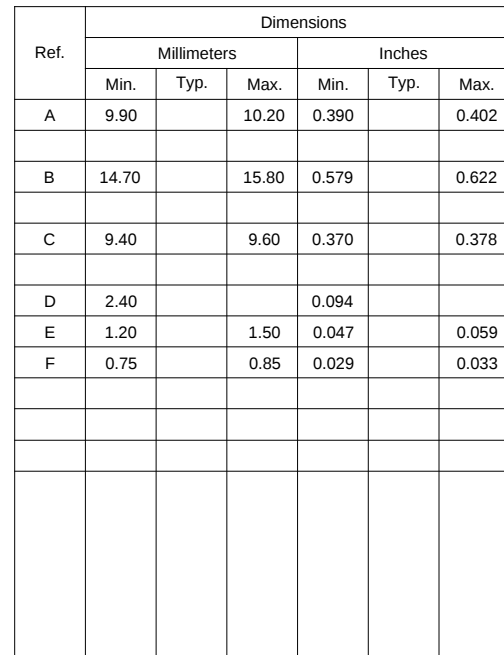
ATION

Voltage /V _{RRM} (V)	IGT(mA)	Package	Base qty. (pcs)	Delivery mode
1200	15	TO-263	50	Tube
			800	Tape & Reel

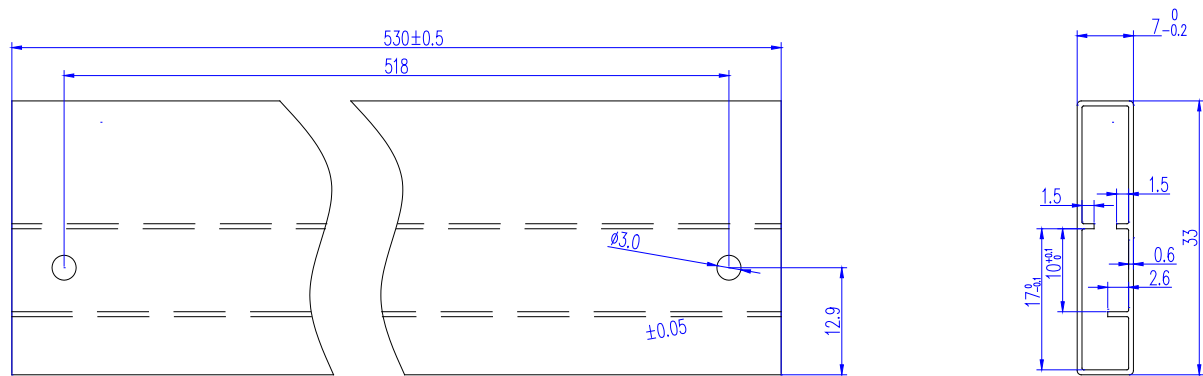
Document Revision History

Revision	Changes
A.1.0	Last update

TEL



DELIVERY MODE



Information furnished in this document is believed to be accurate and reliable.

However, Jiangsu JieJie Microelectronics Co., Ltd. assumes no responsibility for the consequences of use without consideration for such information nor use beyond it.

Information mentioned in this document is subject to change without notice, apart from that when an agreement is signed, Jiangsu JieJie complies with the agreement.

Products and information furnished in this document are subject to change without notice.