

# JIEJIE MICROELECTRONICR

**ABSOLUTE MAXIMUM RATINGS** ( $T_A=25$  , RH=45%-75%, unless otherwise noted)

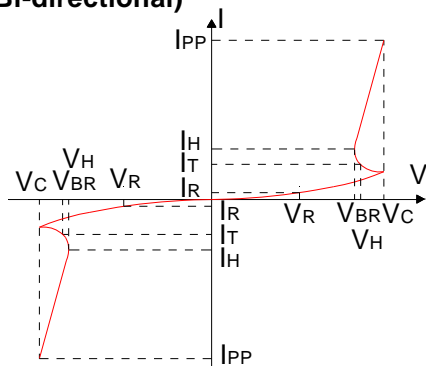
Parameter	Symbol	Value	Unit
Peak pulse power dissipation at 8/20 $\mu$ s waveform	P <sub>PP</sub>	100	W
ESD per IEC 61000-4-2 (Air) ESD per IEC 61000-4-2 (Contact)	V <sub>ESD</sub>	+/- 30 +/- 30	kV
Lead soldering temperature	T <sub>L</sub>	260 (10 sec.)	
Operating junction temperature range	T <sub>J</sub>	-55 to +125	
Storage temperature range	T <sub>STG</sub>	-55 to +150	

**ELECTRICAL CHARACTERISTICS** ( $T_A=25$  )

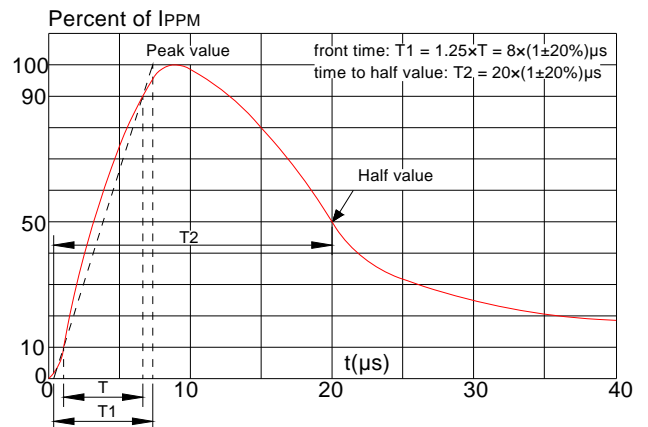
Parameter	Symbol	Conditions	Min	Typ	Max	Unit
Reverse working voltage	V <sub>RWM</sub>				5.0	V
Reverse breakdown voltage	V <sub>BR</sub>	I <sub>T</sub> =1mA	5.5	7	8.5	V
Reverse holding voltage	V <sub>H</sub>	I <sub>H</sub> =50mA	5.5			V
Reverse leakage current	I <sub>R</sub>	V <sub>RWM</sub> =5V			0.1	$\mu$ A
Peak pulse current	I <sub>PP</sub>	t <sub>p</sub> =8/20 $\mu$ s			7	A
Clamping voltage	V <sub>C</sub>	I <sub>PP</sub> =1A, t <sub>p</sub> =8/20 $\mu$ s		7	10	V
		I <sub>PP</sub> =7A, t <sub>p</sub> =8/20 $\mu$ s		11	13	V
Junction capacitance	C <sub>J</sub>	V <sub>RWM</sub> =0V, f=1MHz		18	20	pF

**RATINGS AND V I CHARACTERISTICS CURVES** ( $T_A=25$  , unless otherwise noted)

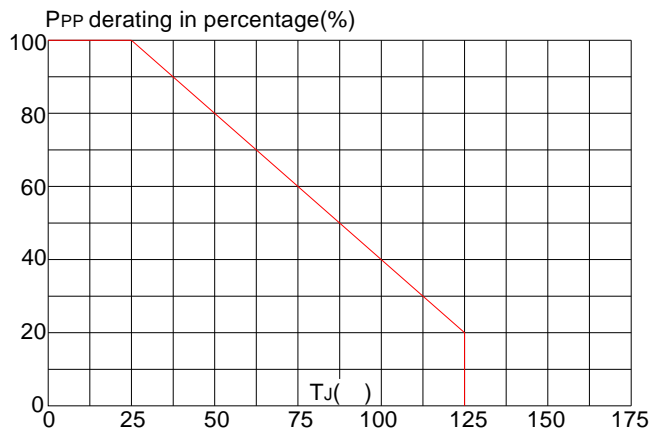
**FIG.1: V- I curve characteristics (Bi-directional)**



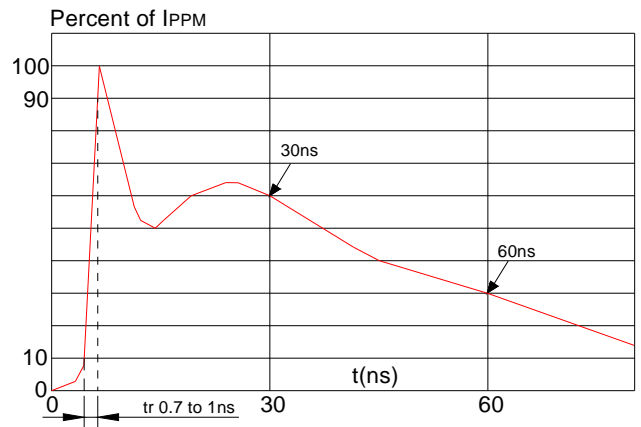
**FIG.2: Pulse waveform (8/20 $\mu$ s)**



**FIG.3: Pulse derating curve**



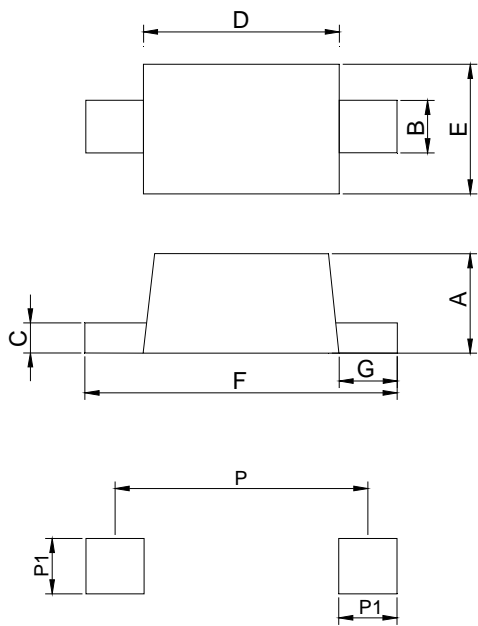
**FIG.4: ESD clamping (30kV contact)**



**SOLDERING PARAMETERS**

Reflow Condition		Pb-Free assembly (see figure at right)
Pre Heat	-Temperature Min (T <sub>s(min)</sub> )	+150
	-Temperature Max(T <sub>s(max)</sub> )	+200
	-Time (Min to Max) (ts)	60-180 secs.
Average ramp up rate (Liquidus Temp (T <sub>L</sub> )to peak)		3

PACKAGE MECHANICAL DATA




Land Pattern

Symbol	Millimeters			Inches		
	Min	Typ	Max	Min	Typ	Max
A	0.50	0.61	0.77	0.020	0.024	0.030
B	0.25	0.30	0.40	0.010	0.012	0.016
C	0.07	0.13	0.20	0.003	0.005	0.008
D	1.10	1.20	1.30	0.043	0.047	0.051
E	0.70	0.80	0.90	0.028	0.031	0.035
F	1.50	1.60	1.70	0.059	0.063	0.067
G	0.15	0.20	0.25	0.006	0.008	0.010
P1	0.60			0.024		
P	1.42			0.056		

TAPE AND REEL SPECIFICATION SOD 523

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MARKING CODE

Part Number	Marking Code
JEB05D5	

JieJie products are not designed for, and shall not be used for, any purpose (including, without limitation, automotive, military, aerospace, medical, life-saving, life-sustaining or nuclear facility applications, devices intended for surgical implant into the body, or any other application in which the failure or lack of desired operation of the product may result in personal injury, death, or property damage) other than th