

### Features

- Peak power dissipation  
600W@10 x 1000 us Pluse
- Low incremental surge resistance
- Excellent clamping capability
- Fast response time
- Low leakage current
- Halogen free and RoHS compliant

### Applications

- Personal digital assistants (PDA)
- Cellular handsets & Accessories
- Handhelds and notebooks
- Portable instrumentation

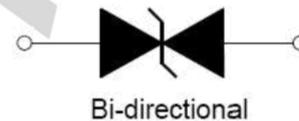
### Mechanical Characteristics

- SMB surface mount package

### Dimensions and Pin Configuration



DO-214AA (SMB)



Pin Configuration

### Maximum Ratings & Thermal Characteristics

(Tamb=25°C unless otherwise specified)

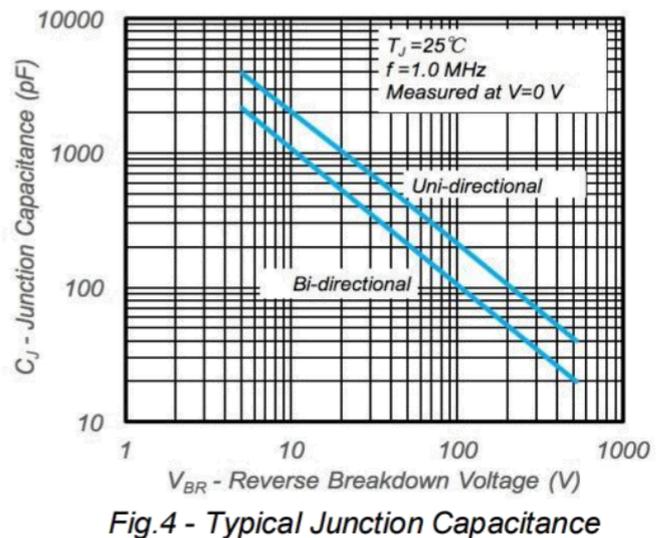
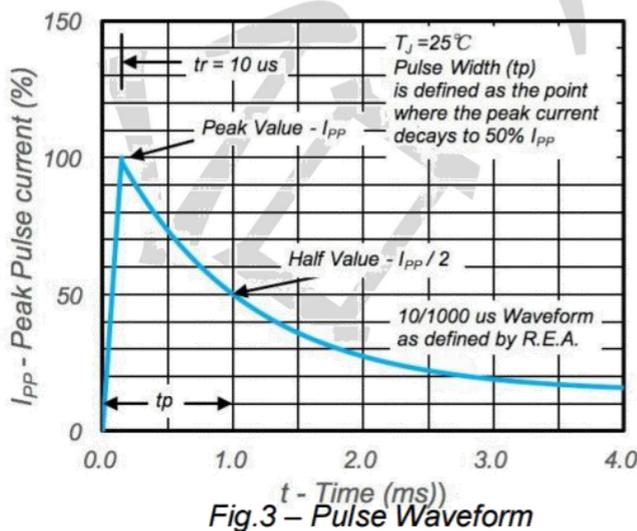
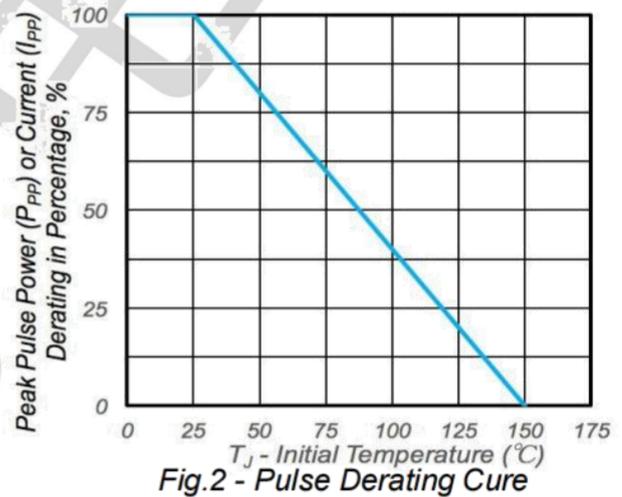
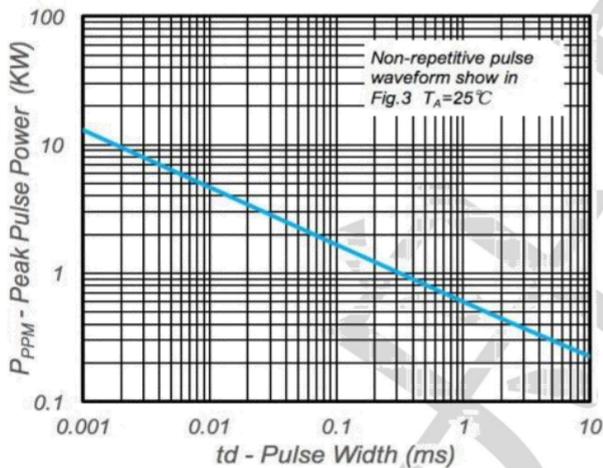
Parameter	Symbol	Value	Unit
Peak pulse power (tp=10/1000µs waveform)	PPp	600	W
Power Dissipation on Infinite Heat Sink at TL=50°C	PD	5	W
Peak Pulse Current of on 10/1000us Waveform	IPPM	1	A
Peak Forward Surge Current, 8.3ms Single Half Sine-Wave	IFSM	100	A
Storage & operating temperature range	TSTG , TJ	-55~+150	°C

### Electrical Characteristics

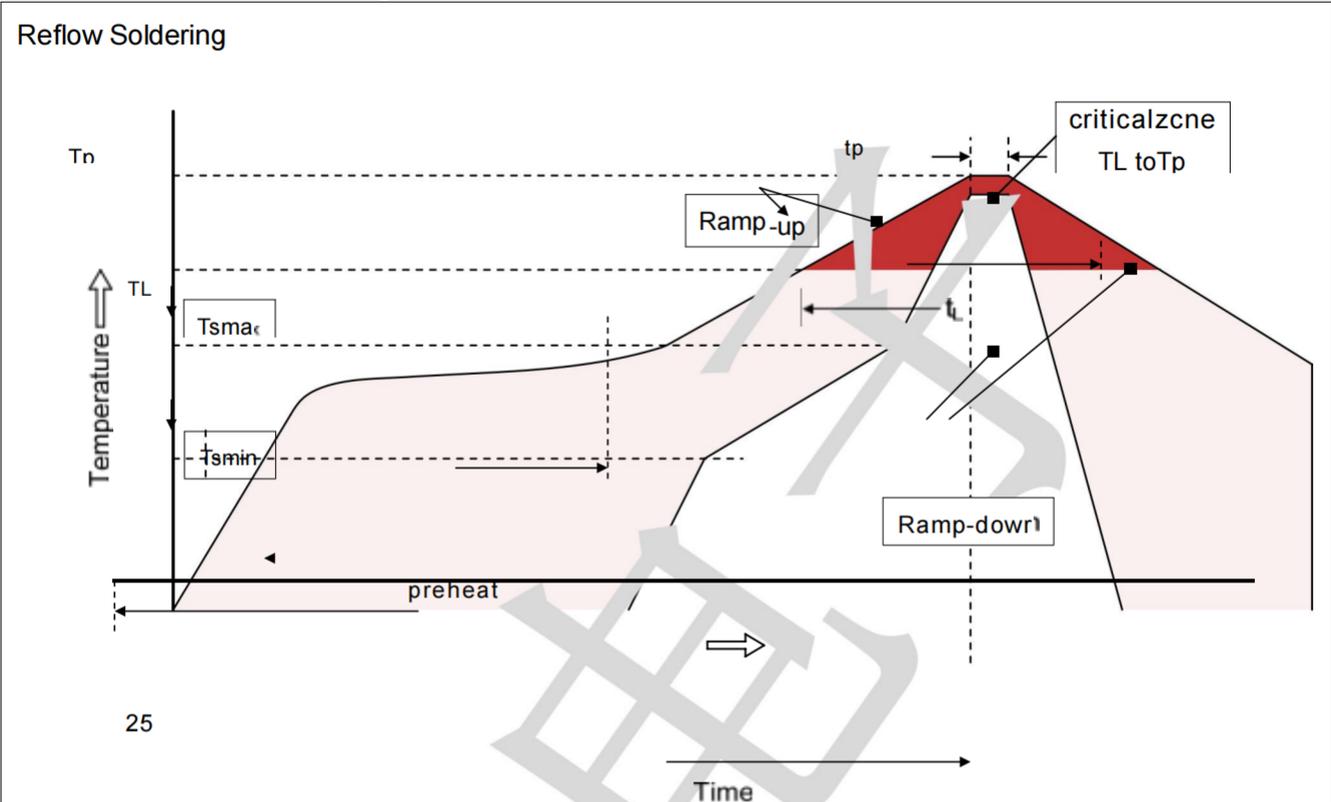
(TA=25°C unless otherwise specified)

Part Number	Reverse Stand-Off Voltage	Breakdown Voltage @I <sub>T</sub>		Test Current	Maximum Clamping Voltage @I <sub>PP</sub>	Peak Pulse Current	Reverse Leakage @V <sub>RWM</sub>
	V <sub>RWM</sub> (V)	V <sub>BR MIN.</sub> (V)	V <sub>BR MAX.</sub> (V)	I <sub>T</sub> (mA)	V <sub>C</sub> (V)	I <sub>PP</sub> (A)	I <sub>R</sub> (μA)
SMBJ6.8CA	6.8	6.46	7.14	10	10.5	57.1	500

### Typical Characteristics Curves



### Recommended Soldering Conditions

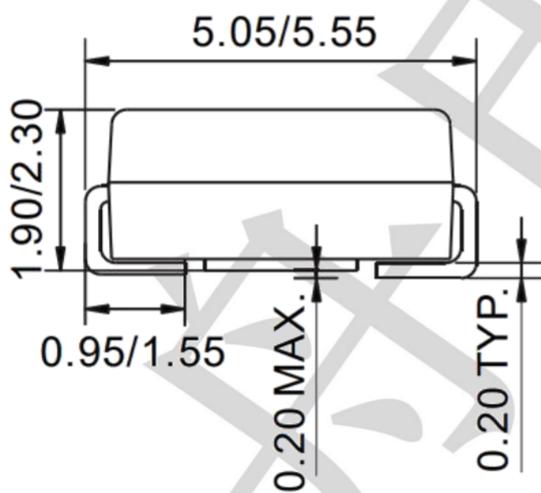
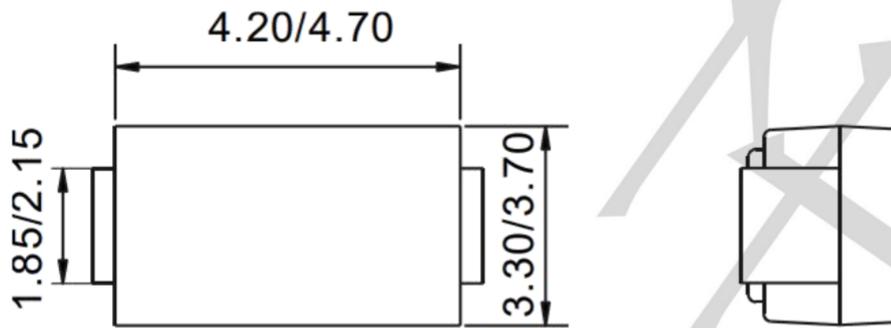


### Recommended Conditions

Profile Feature	Pb-Free Assembly
Average ramp-up rate ( $T_L$ to $T_P$ )	3°C/second max.
Preheat	
-Temperature Min ( $T_{Smin}$ )	150°C
-Temperature Max ( $T_{Smax}$ )	200°C
-Time (min to max) (ts)	60-180 seconds
$T_{Smax}$ to $T_L$	
-Ramp-up Rate	3°C/second max.
Time maintained above:	
-Temperature ( $T_L$ )	217°C
-Time ( $t_L$ )	60-150 seconds
Peak Temperature ( $T_P$ )	260°C
Time within 5°C of actual Peak Temperature ( $t_p$ )	20-40 seconds
Ramp-down Rate	6°C/second max.
Time 25°C to Peak Temperature	8 minutes max.

**Package Outline Dimensions (unit: mm)**

SMB



**Mounting Pad Layout (unit: mm)**

