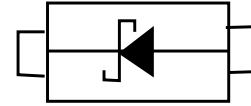


Feature

- Metal silicon junction, majority carrier conduction
- For surface mounted applications
- Low power loss, high efficiency
- High forward surge current capability
- For use in low voltage, high frequency inverters, free wheeling, and polarity protection applications


Mechanical Characteristics

- Case: SMAF
- Terminals: Solderable per MIL-STD-750, Method 2026
- Approx. Weight: 27mg 0.00086oz

Absolute maximum rating@25°C

Parameter	Symbol	PSBDA F20V3	PSBDA F40V3	PSBDA F60V3	PSBDA F80V3	PSBDA F100V3	PSBDA F120V3	PSBDA F150V3	PSBDA F200V3	Units
Maximum Repetitive Peak Reverse Voltage	V_{RRM}	20	40	60	80	100	120	150	200	V
Maximum RMS voltage	V_{RMS}	14	28	42	56	70	84	105	140	V
Maximum DC Blocking Voltage	V_{CC}	20	40	60	80	100	120	150	200	V
Maximum Average Forward Rectified Current	$I_{F(AV)}$	3.0								A
Peak Forward Surge Current, 8.3ms Single Half Sine-wave Superimposed on Rated Load (JEDEC method)	I_{FSM}	80				70				A
Max Instantaneous Forward Voltage at 3 A	V_F	0.55		0.70		0.85		0.95		V

Absolute maximum rating@25°C

Parameter	Symbol	PSBDA F20V3	PSBDA F40V3	PSBDA F60V3	PSBDA F80V3	PSBDA F100V3	PSBDA F120V3	PSBDA F150V3	PSBDA F200V3	Units
Maximum DC Reverse Current Ta = 25°C at Rated DC Reverse Voltage Ta =100°C	I_R	0.5	10				0.3	5		mA
Typical Junction Capacitance 1)	C_j	250					160			pF
Typical Thermal Resistance 2)	$R_{\theta JA}$					40				°C/W
Operating Junction Temperature Range	T_j					-55~±125				°C
Storage Temperature Range	T_{stg}					-55~+150				°C

Typical Characteristics

Fig.1 Forward Current Derating Curve

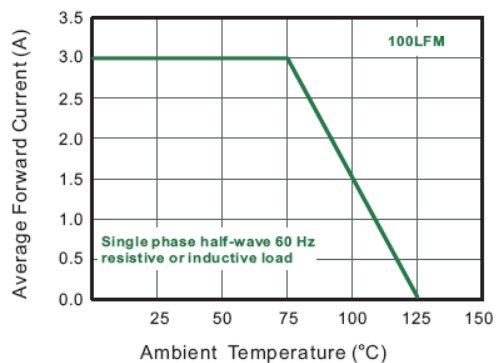


Fig.2 Typical Reverse Characteristics

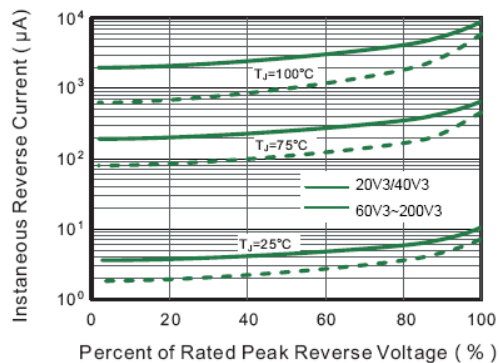


Fig.3 Typical Forward Characteristic

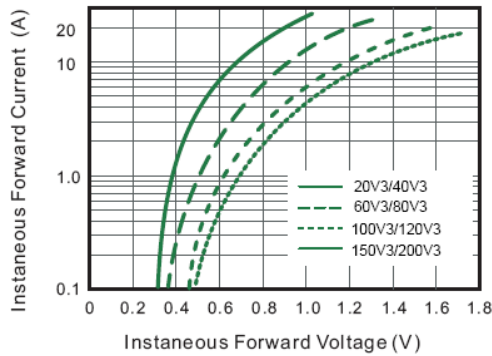


Fig.4 Typical Junction Capacitance

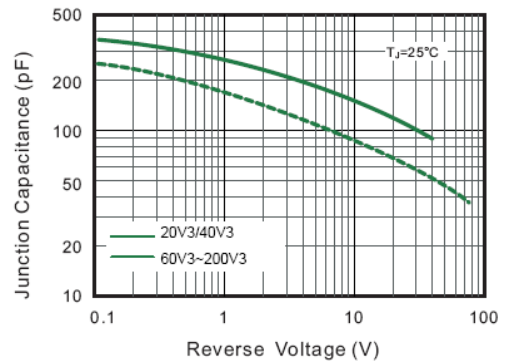


Fig.5 Maximum Non-Repetitive Peak Forward Surge Current

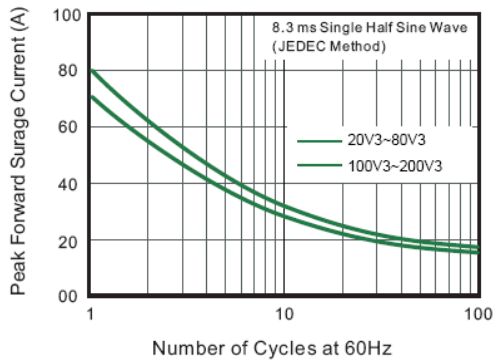
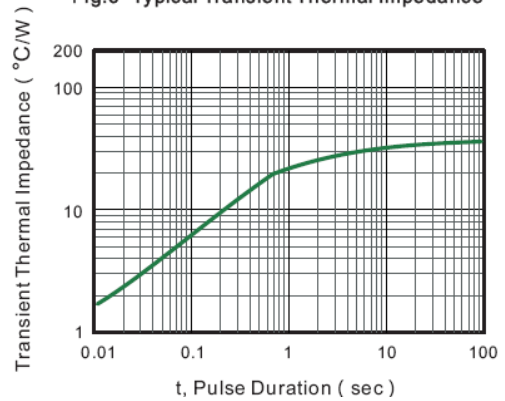
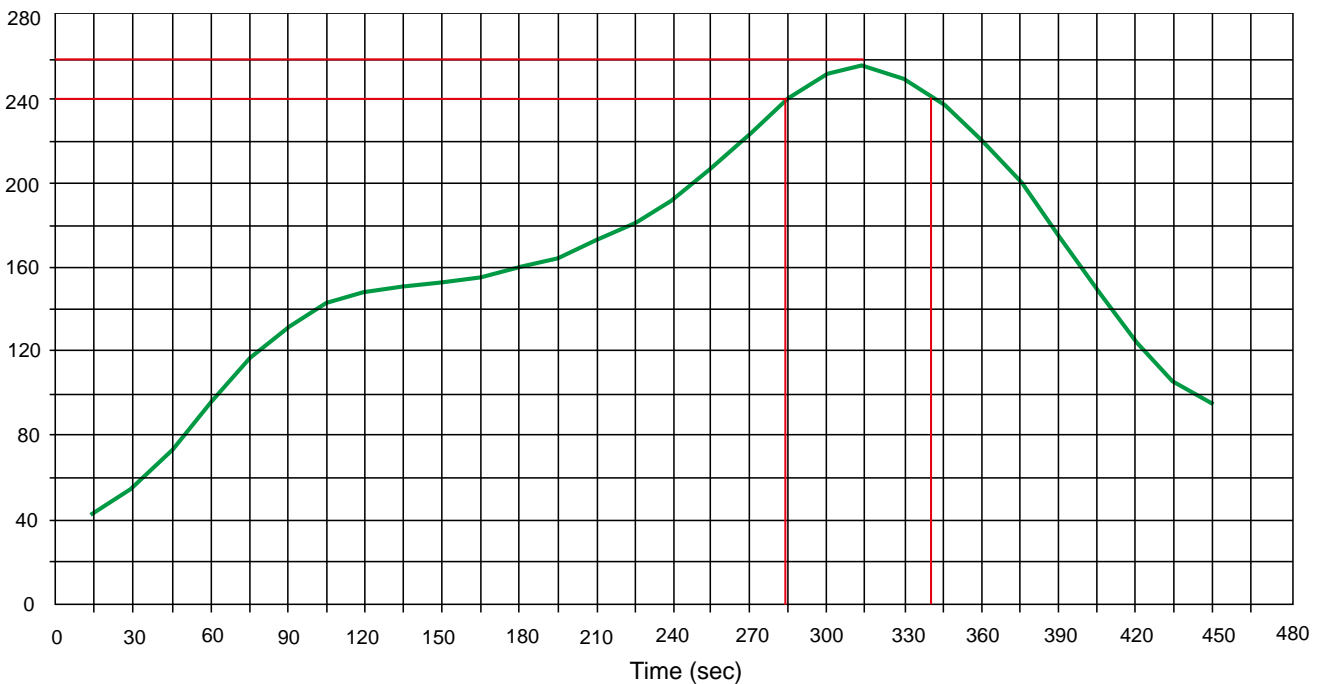


Fig.6- Typical Transient Thermal Impedance

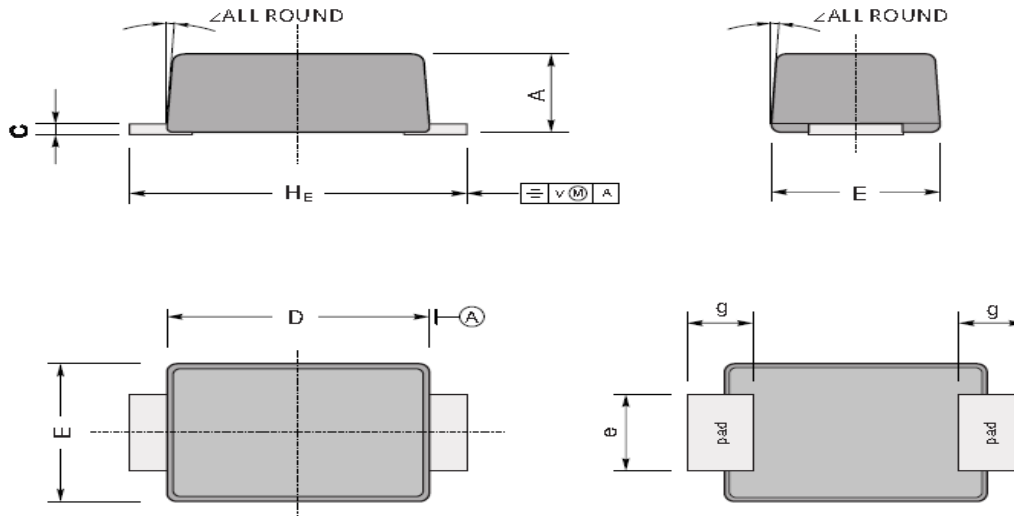


Solder Reflow Recommendation

Peak Temp= 257°C , Ramp Rate= $0.802\text{deg. }^\circ\text{C/sec}$

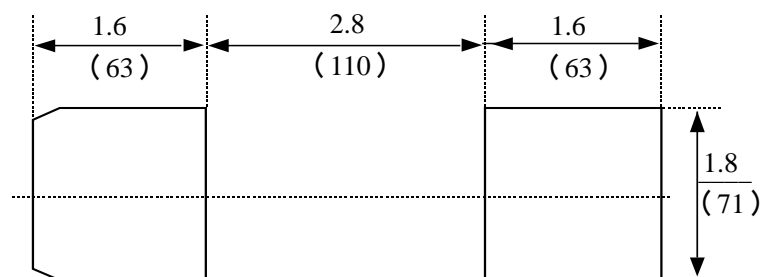


Product dimension (SMAF)



UNIT		A	C	D	E	e	g	H _E	\angle
mm	max	1.3	0.23	3.7	2.7	1.6	1.3	4.9	7°
	min	1.1	0.18	3.3	2.4	1.3	1.0	4.4	
mil	max	51	9.1	146	106	63	51	193	
	min	43	7.1	130	94	51	39	173	

The recommended mounting pad size




Unit: $\frac{\text{mm}}{\text{(mil)}}$

Ordering information

Device	Package	Shipping
PSBDAFXXXV3	SMAF (Pb-Free)	3000/ Tape & Reel


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Unit:mm