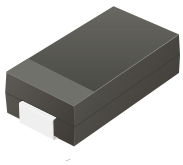
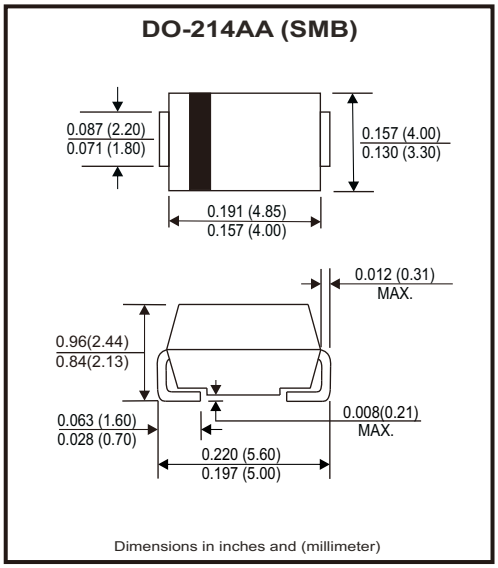
SS34B-HF Thru. SS320B-HF

Reverse Voltage: 40 to 200 V
Forward Current: 3.0 A
RoHS Device
Halogen Free





Features

- 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 data

- Case: SMB/DO-214AA.
- Terminals: Solderable per MIL-STD-750, Method 2026.
- Polarity: Indicated by cathode band.
- Mounting position: Any.

Circuit Diagram



Maximum Ratings and Electrical Characteristics

Ratings at 25 °C ambient temperature unless otherwise specified.Single phase, half wave, 60Hz resistive or inductive load, for capacitive load, derate by 20 %

Parameter	Symbols	SS34B	SS36B	SS310B	SS315B	SS320B	Units
Maximum repetitive peak reverse voltage	V_{RRM}	40	60	100	150	200	V
Maximum RMS voltage	V_{RMS}	28	42	70	105	140	V
Maximum DC blocking voltage	V_{DC}	40	60	100	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					A
Max instantaneous forward voltage at 3 A	V_F	0.55	0.70	0.85	0.95		V
Maximum DC reverse current at rated DC reverse voltage T_a = 25°C T_a =100°C	I_R	0.5 5		0.3 3			mA
Typical junction capacitance (1)	C_j	450		400			pF
Typical thermal resistance (2)	$R_{\theta JA}$	60					°C/W
Operating junction temperature range	T_j	-55 ~ +150					°C
Storage temperature range	T_{stg}	-55 ~ +150					°C

(1) Measured at 1 MHz and applied reverse voltage of 4 V D.C (2) P.C.B. mounted with 2.0" X 2.0" (5 X 5 cm) copper pad areas.

Rating and Characteristic Curves (SS34B-HF Thru. SS320B-HF)

Fig.1 - Forward Current Derating Curve

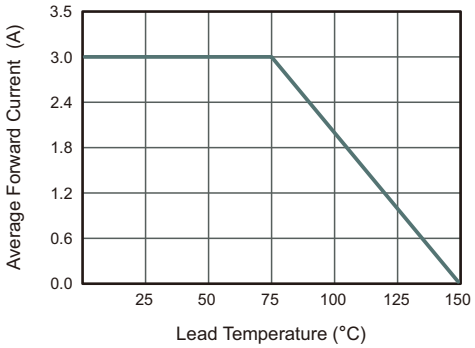


Fig.2 - Typical Reverse Characteristics

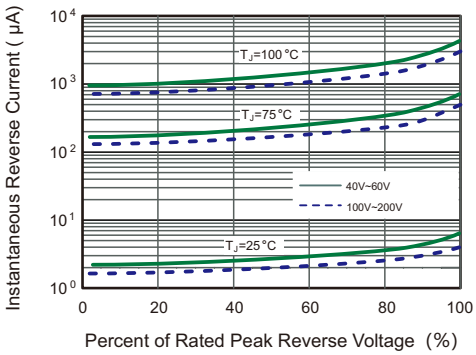


Fig.3 - Typical Forward Characteristic

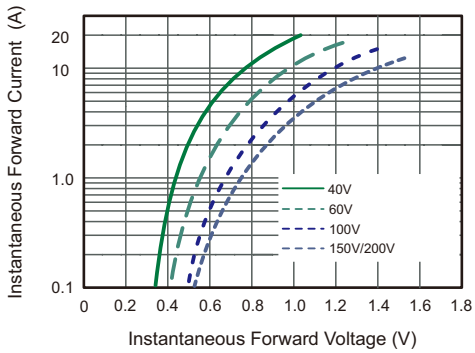


Fig.4 - Typical Junction Capacitance

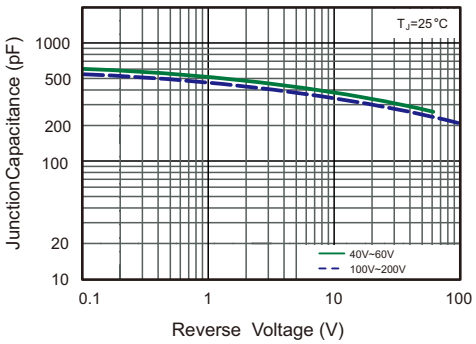


Fig.5 - Maximum Non-Repetitive Peak Forward Surge Current

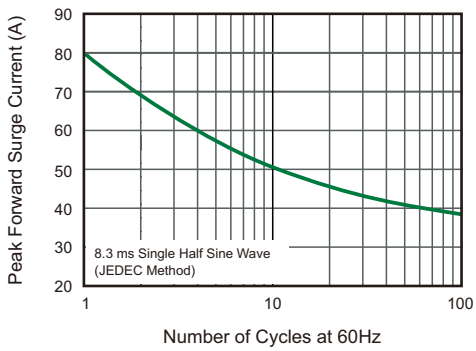
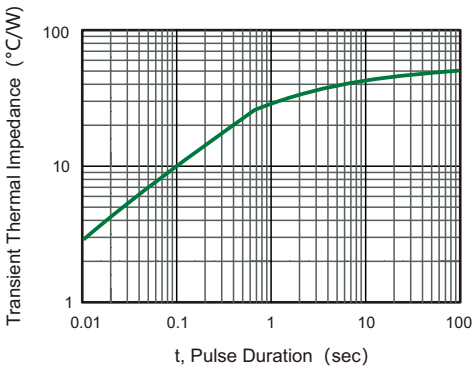
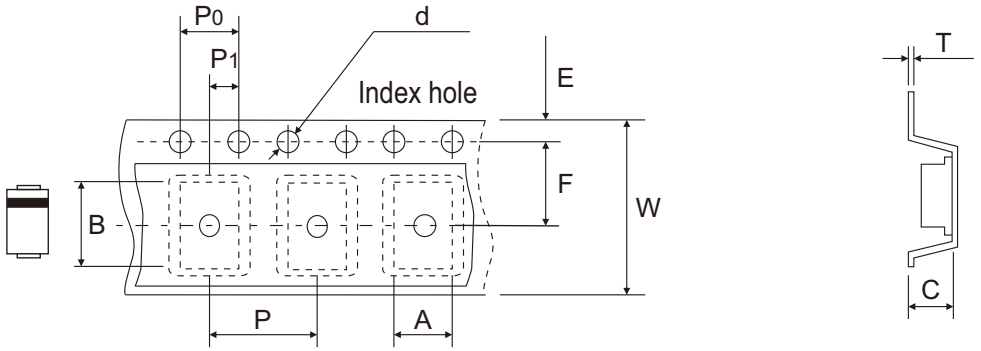
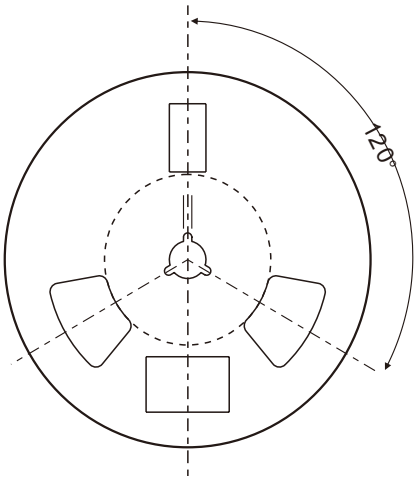


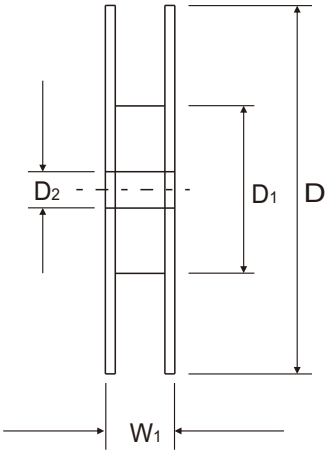
Fig.6 - Typical Transient Thermal Impedance

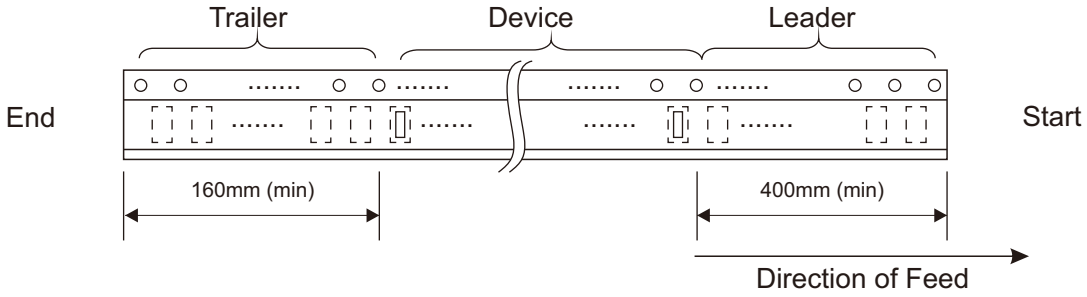


Reel Taping Specification







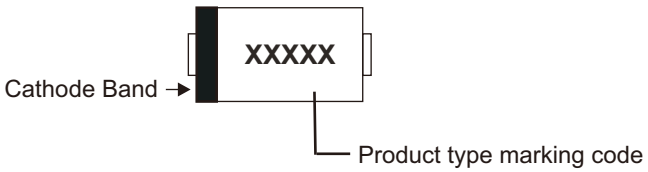


DO-214AA (SMB)	SYMBOL	A	B	C	d	D	D1	D2
	(mm)	4.00 ± 0.10	5.90 ± 0.10	3.00 ± 0.10	1.50 ± 0.10	330 ± 2.00	50.0 MIN.	13.50 ± 0.50
	(inch)	0.157 ± 0.004	0.232 ± 0.004	0.118 ± 0.004	0.059 ± 0.004	12.99 ± 0.079	1.969 MIN.	0.531 ± 0.020

DO-214AA (SMB)	SYMBOL	E	F	P	P0	P1	T	W	W1
	(mm)	1.75 ± 0.10	5.50 ± 0.10	8.00 ± 0.10	4.00 ± 0.10	2.00 ± 0.10	0.60 ± 0.10	12.0 ± 0.30	18.4 ± 1.00
	(inch)	0.069 ± 0.004	0.217 ± 0.004	0.315± 0.004	0.157 ± 0.004	0.079 ± 0.004	0.236 ± 0.004	0.472 ±0.012	0.724 ± 0.040

Marking Code

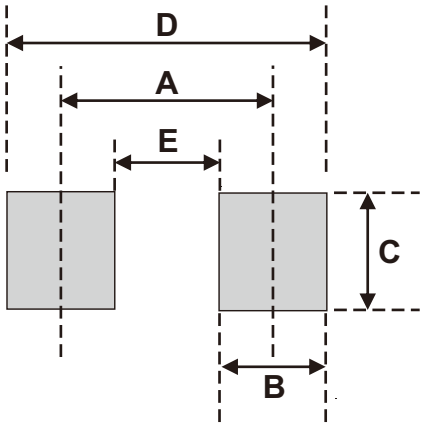
Part Number	Marking Code
SS34B-HF	SS34
SS36B-HF	SS36
SS310B-HF	SS310
SS315B-HF	SS315
SS320B-HF	SS320



xxxx/xxxxx = Product type marking code

Suggested P.C.B. PAD Layout

SIZE	DO-214AA (SMB)	
	(mm)	(inch)
A	4.30	0.169
B	2.50	0.098
C	2.50	0.098
D	6.80	0.268
E	1.80	0.071



Standard Packaging

Case Type	REEL PACK	
	REEL (pcs)	Reel Size (inch)
DO-214AA (SMB)	3,000	13