

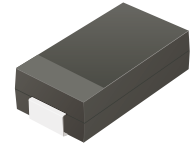
CSFB304-HF Thru. CSFB308-HF

Reverse Voltage: 200 to 600 Volts

Forward Current: 3.0 Amp

RoHS Device

Halogen free



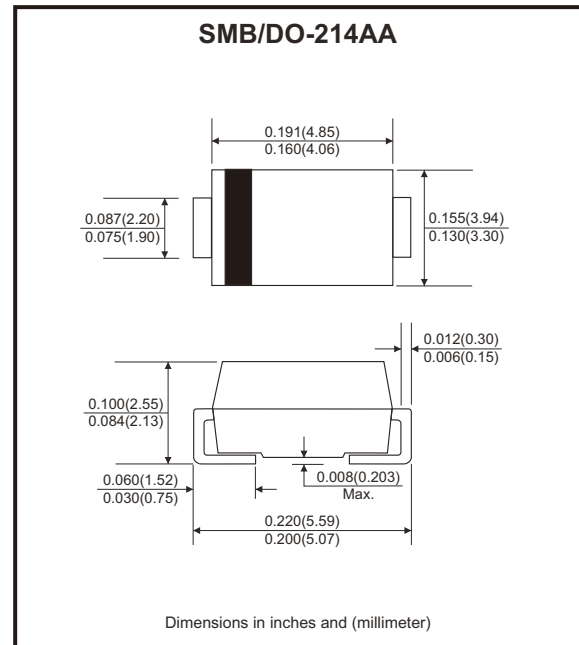
Features

- High current capability.
- High surge current capability.
- Low reverse current.

Mechanical data

- Case: DO-214AA / SMB, molded plastic.
- Epoxy: UL flammability classification rate 94V-0.
- Terminals: Lead free plating (Tim finish)
Solderable per MIL-STD-202, method 208.
- Polarity: Color band denotes cathode end.
- Weight: 0.092 grams (approximate).

Circuit diagram



Maximum Ratings and Electrical Characteristics (at $T_A=25^\circ\text{C}$ unless otherwise noted)

Parameter	Symbol	CSFB304-HF	CSFB306-HF	CSFB308-HF	Unit
Max. Repetitive peak reverse voltage	V_{RRM}	200	400	600	V
Max. RMS voltage	V_{RMS}	140	280	420	V
Max. DC blocking voltage	V_{DC}	200	400	600	V
Max. Average forward rectified current	I_F	3			A
Peak forward surge current, 8.3ms single half sine-wave superimposed on rated load	I_{FSM}	80			A
Max. Instantaneous forward voltage $I_F=3A @ 25^\circ\text{C}$	V_F	0.98	1.3	1.75	V
Max. DC reverse current @ $T_A=25^\circ\text{C}$ at Rated DC blocking voltage @ $T_A=100^\circ\text{C}$	I_R	5 100			μA
Typical junction capacitance (Note 1)	C_J	60			pF
Max. Reverse recovery time (Note 2)	T_{rr}	35			ns
Typical thermal resistance	$R_{\theta JC}$	35			$^\circ\text{C/W}$
Operating temperature range	T_J	-55 to +150			$^\circ\text{C}$
Storage temperature range	T_{STG}	-55 to +150			$^\circ\text{C}$

Note: 1. Measured at 1.0MHz and applied reverse voltage of 4V DC.

2. Measured with $I_F=0.5A$, $I_R=1A$, $I_{RR}=0.25A$.

3. Device mounted on FR-4 substrate, 0.4" * 0.5", 2oz, single-sided, PCB with 0.2" * 0.25" copper pad.

Company reserves the right to improve product design , functions and reliability without notice.

REV:A

Rating and Characteristics Curves (CSFB304-HF Thru. CSFB308-HF)

Fig.1 - Typical Forward Current Derating Curve

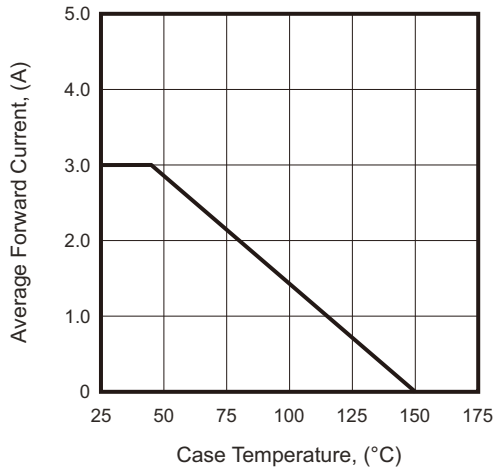


Fig.2 - Typical Forward Characteristics

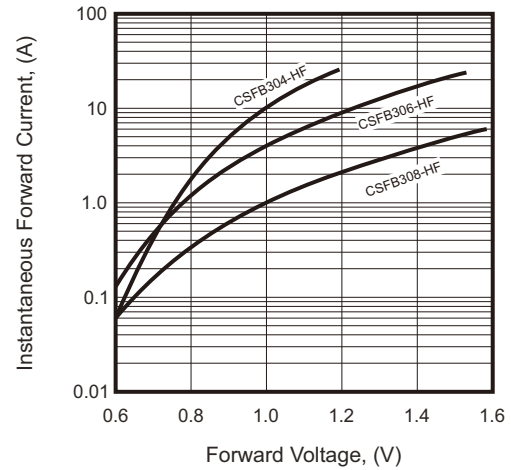


Fig.3 - Maximum Non-repetitive Forward Surge Current

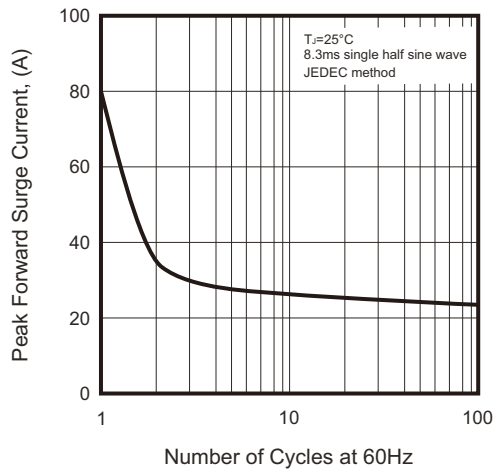


Fig.4 - Typical Reverse Characteristics

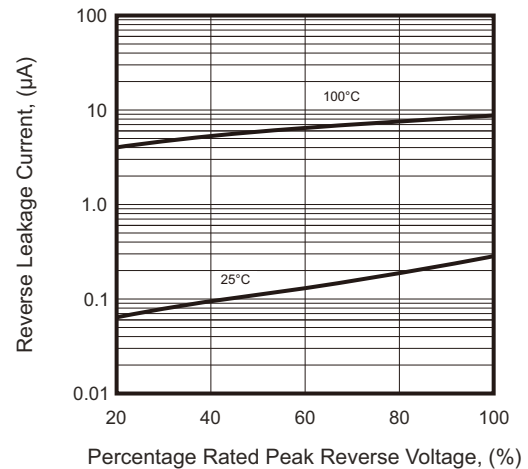
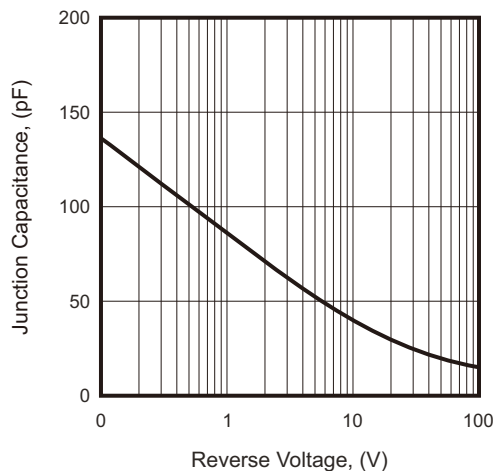
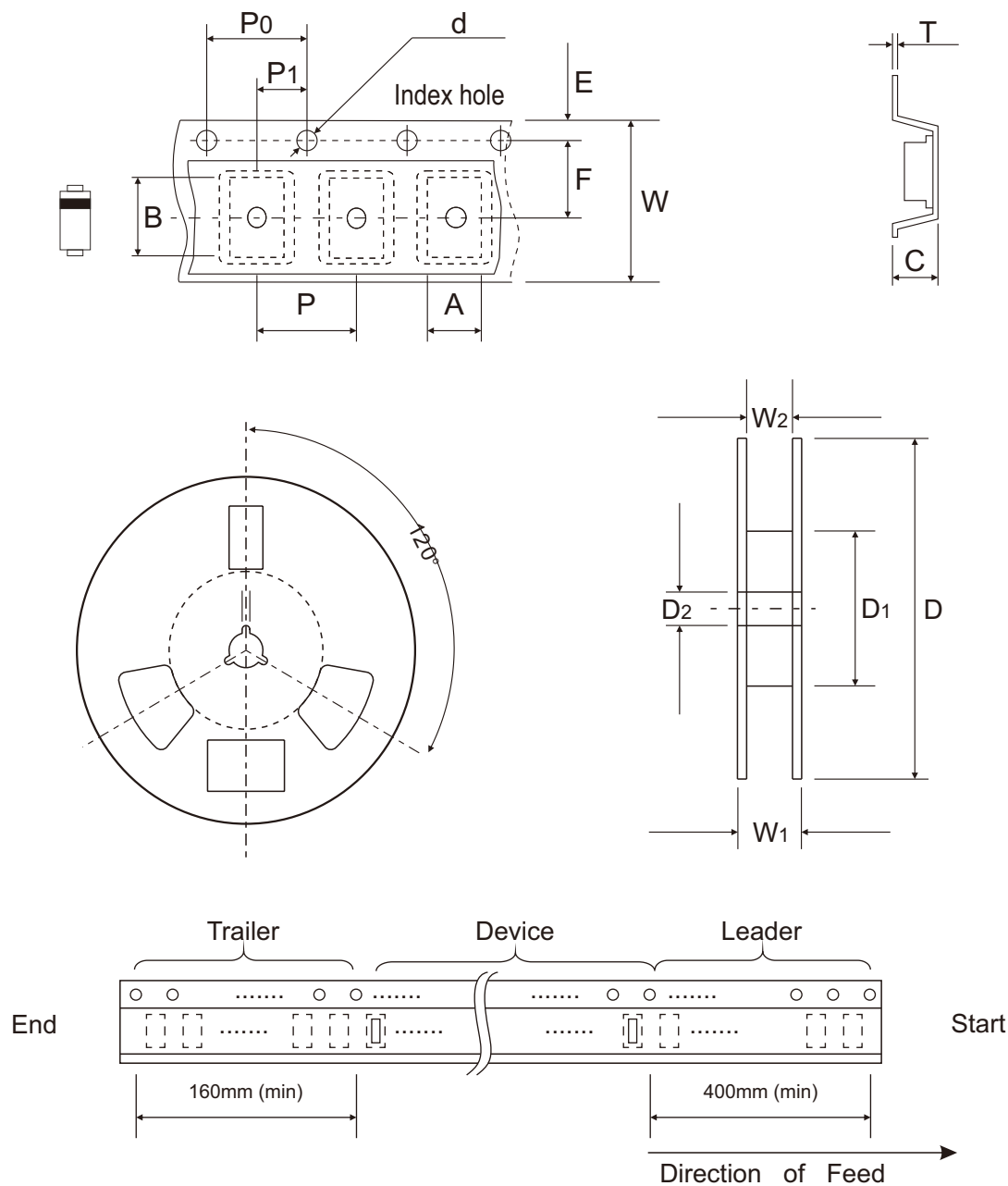


Fig.5 - Typical Junction Capacitance



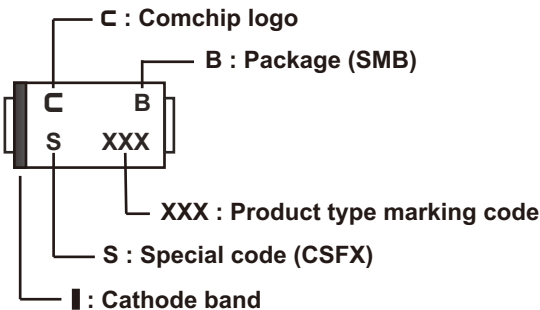
Reel Taping Specification



DO-214AA (SMB)	SYMBOL	A	B	C	d	D	D1	D2	E
	(mm)	4.00 Max.	5.90 Max.	3.00 Max.	1.50 ± 0.10	330.00 ± 2.00	50.00 Min.	13.50 ± 1.00	1.75 ± 0.10
	(inch)	0.157 Max.	0.232 Max.	0.118 Max.	0.059 ± 0.004	12.992 ± 0.079	1.969 Min.	0.531 ± 0.039	0.069 ± 0.004
DO-214AA (SMB)	SYMBOL	F	P	P0	P1	T	W	W1	W2
	(mm)	5.50 ± 0.05	8.00 ± 0.10	4.00 ± 0.10	2.00 ± 0.05	0.60 Max.	12.00 ± 0.30	18.40 Max.	14.40 Max.
	(inch)	0.217 ± 0.002	0.315 ± 0.004	0.157 ± 0.004	0.079 ± 0.002	0.024 Max.	0.472 ± 0.012	0.724 Max.	0.567 Max.

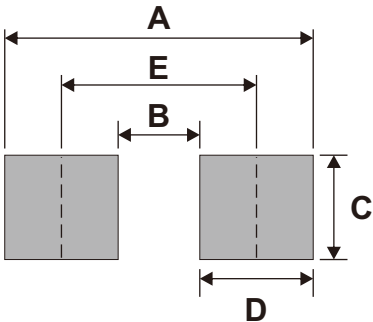
Marking Code

Part Number	Marking Code
CSFB304-HF	304
CSFB306-HF	306
CSFB308-HF	308



Suggested PAD Layout

SIZE	DO-214AA(SMB)	
	(mm)	(inch)
A	6.80	0.268
B	1.80	0.071
C	2.30	0.091
D	2.50	0.098
E	4.30	0.169



Note: 1. The pad layout is for reference purposes only.

Standard Packaging

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