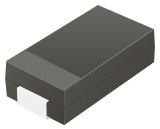
SMD Super Fast Recovery Rectifiers

CSFB203-HF

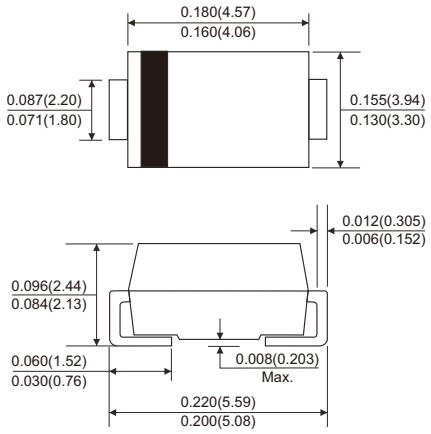
Reverse Voltage: 200 V
Forward Current: 2.0 A
RoHS Device
Halogen Free



Features

- The plastic package carries underwriters laborabtory.
- Idea for printed circuit board.
- Glass passivated junction chip.
- Low reverse leakage.
- High forward surge current capability.
- High temperature soldering guaranteed 250°C/10 seconds at terminals.

SMB/DO-214AA



Dimensions in inches and (millimeter)

Mechanical data

- Case: SMB/DO-214AA, molded plastic.
- Terminals: Solder plated, solderable per MIL-STD-750, method 2026.
- Polarity: Color band denotes cathode end.
- 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 current derate by 20%.

Parameter	Symbol	CSFB203-HF	Units
Max. repetitive peak reverse voltage	V_{RRM}	200	V
Max. RMS voltage	V_{RMS}	140	V
Max. DC blocking voltage	V_{DC}	200	V
Max. average forward rectified current at TL=100°C	$I_{(AV)}$	2	A
Peak forward surge current, 8.3ms single half sine-wave superimposed on rated load	I_{FSM}	50	A
Max. instantaneous forward voltage at 2A	V_F	0.95	V
Max. DC reverse current at rated DC blocking voltage T_A=25°C T_A=125°C	I_R	5 500	μA
Max. reverse recovery time (Note 1)	T_{rr}	35	ns
Typ. junction capacitance (Note 2)	C_J	55	pF
Typ. thermal resistance	$R_{\theta JA}$	85	°C/W
Operating junction and storage temperature range	T_J, T_{STG}	-55 to +150	°C

Notes: 1. Reverse recovery time test condition: I_F=0.5A I_R=1A Irr=0.25A.
2. Measured at 1MHz and applied reverse voltage of 4V D.C.

Rating and Characteristic Curves (CSFB203-HF)

Fig.1 - Derating Curve Output Rectified Current

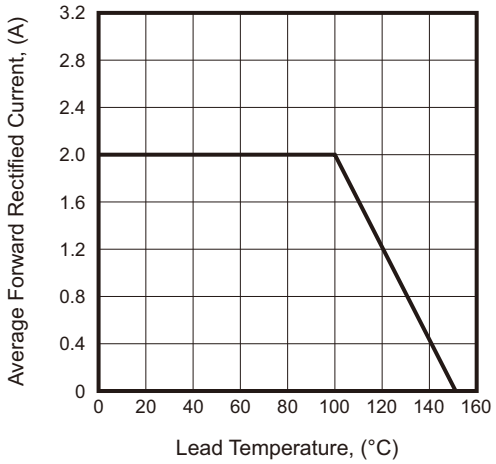


Fig.2 - Maximum Non-Repetitive Peak Forward Surge Current Per Leg

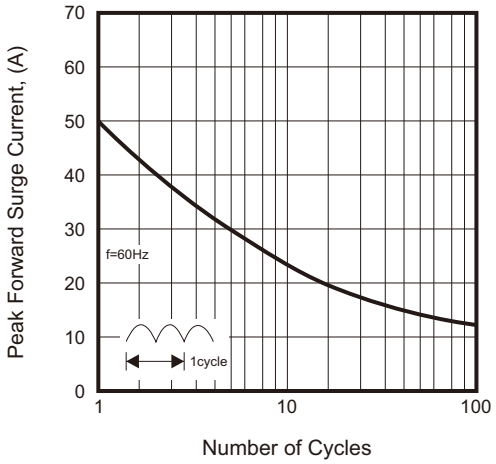


Fig.3 - Typical Forward Voltage Characteristics

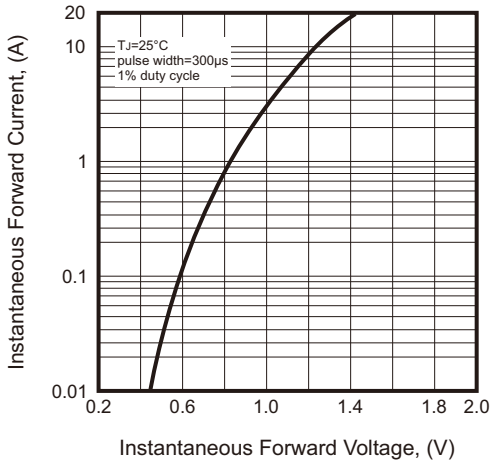
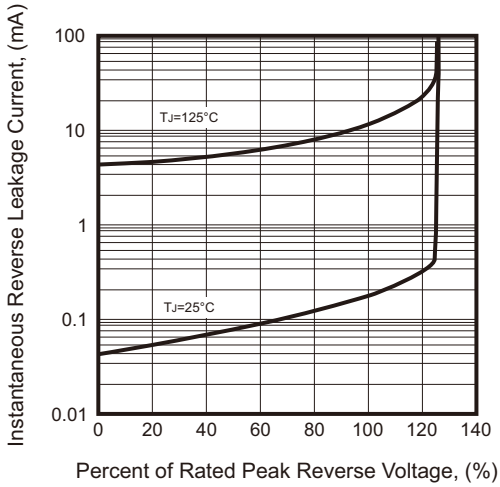
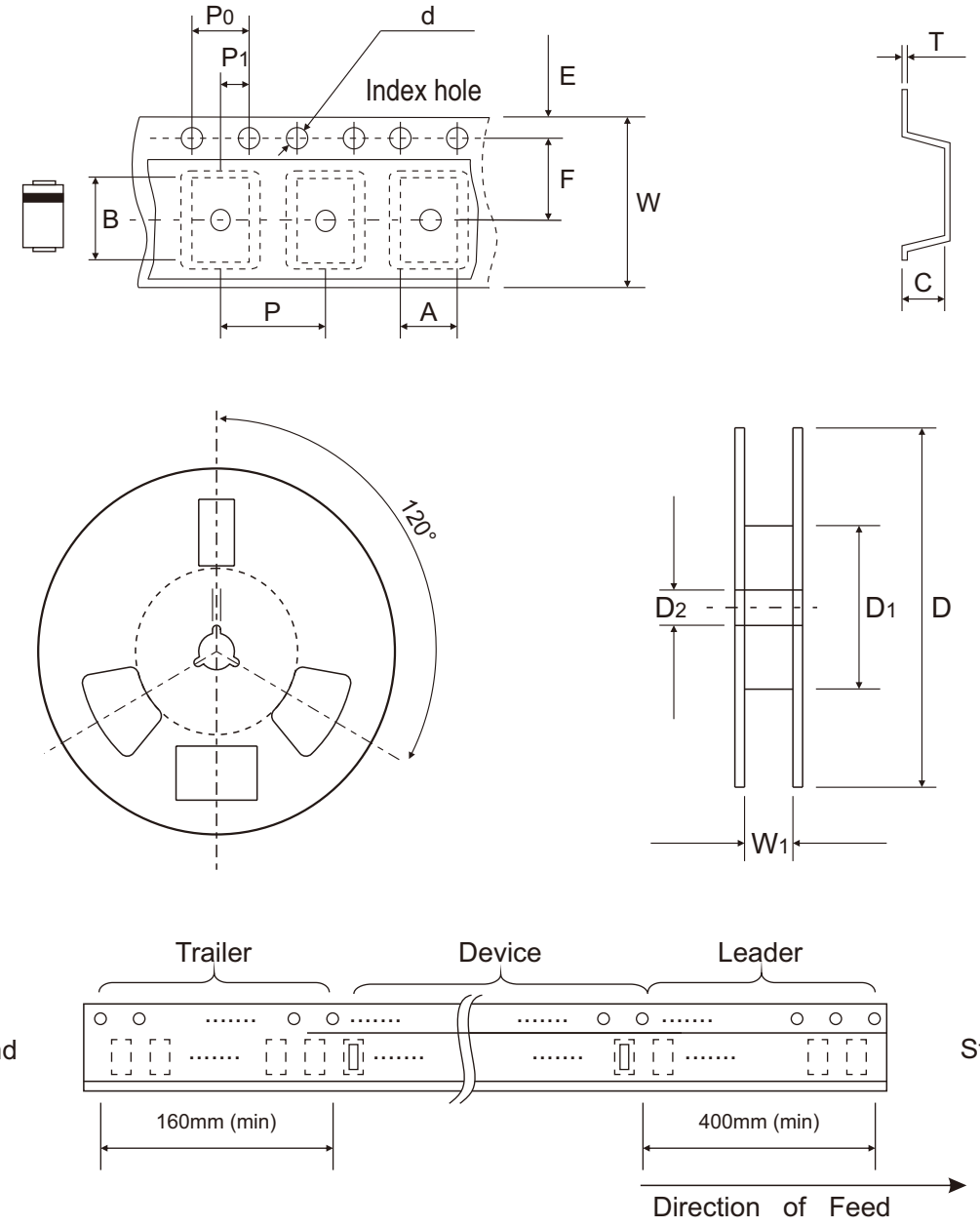


Fig.4 - Typical Reverse Leakage Characteristics



Reel Taping Specification

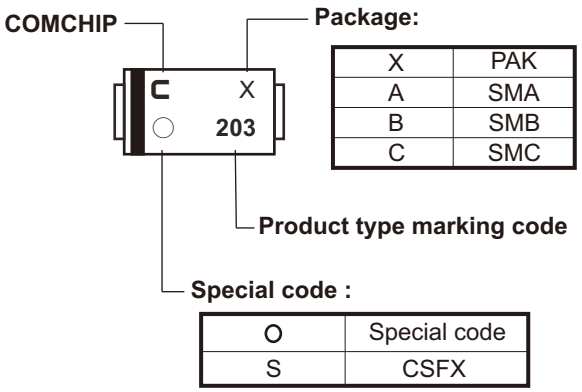


	SYMBOL	A	B	C	d	D	D_1	D_2
DO-214AA (SMB)	(mm)	3.80 ± 0.20	5.40 ± 0.20	2.45 ± 0.20	1.55 ± 0.20	330.00 ± 2.00	75.00 ± 2.00	13.50 ± 2.00
	(inch)	0.150 ± 0.008	0.213 ± 0.008	0.096 ± 0.008	0.061 ± 0.008	12.992 ± 0.079	2.953 ± 0.079	0.531 ± 0.079

	SYMBOL	E	F	P	P_0	P_1	T	W	W_1
DO-214AA (SMB)	(mm)	1.75 ± 0.20	5.50 ± 0.20	8.00 ± 0.20	4.00 ± 0.20	2.00 ± 0.20	0.25 ± 0.20	12.00 ± 0.20	13.50 ± 2.00
	(inch)	0.069 ± 0.008	0.217 ± 0.008	0.315 ± 0.008	0.157 ± 0.008	0.079 ± 0.008	0.010 ± 0.008	0.472 ± 0.008	0.531 ± 0.079

Marking Code

Part Number	Marking Code
CSFB203-HF	203

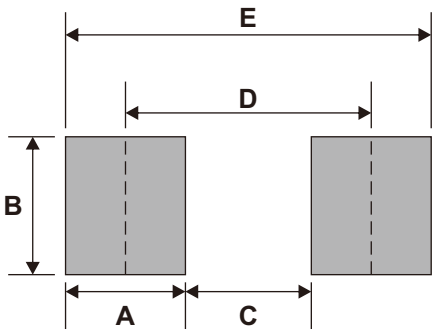


X	PAK
A	SMA
B	SMB
C	SMC

O	Special code
S	CSFX

Suggested P.C.B. PAD Layout

SIZE	SMB/DO-214AA	
	(mm)	(inch)
A	2.00	0.079
B	2.30	0.091
C	2.10	0.083
D	4.10	0.161
E	6.10	0.240



Standard Packaging

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