

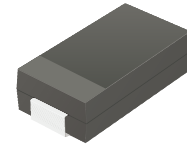
ACSFB304-HF Thru. ACSFB308-HF

Reverse Voltage: 200 to 600 Volts

Forward Current: 3.0 Amp

RoHS Device

Halogen Free

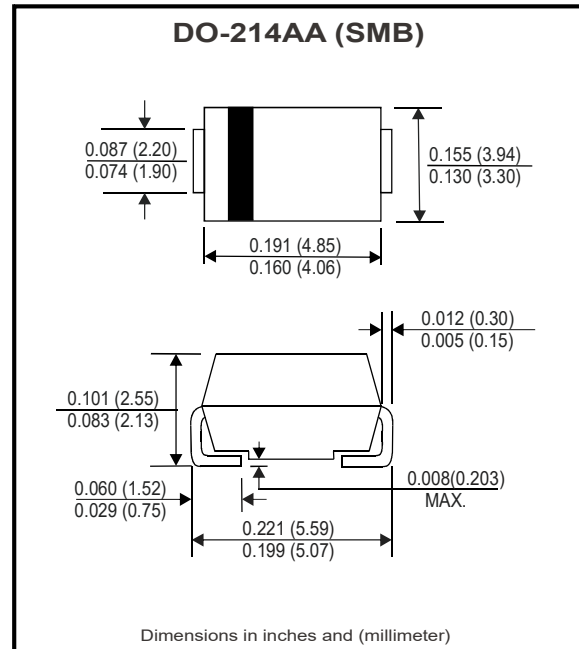


Features

- High current capability
- High surge current capability
- Low reverse current
- Component in accordance to RoHS 2002/95/EC
- AEC-Q101 Qualified

Mechanical data

- Case: DO-214AA(SMB)
- Case Material: Molded Plastic. UL
- Flammability Classification Rating 94V-0
- Terminals: Lead Free Plating (Tin Finish).
- Solderable per MIL -STD- 202, Method 208
- Polarity: Cathode Band
- Weight: 0.092 grams (approximate)



Circuit Diagram



Maximum Ratings and Electrical Characteristics

Ratings at $T_a=25^{\circ}\text{C}$ unless otherwise noted.
Single phase, half wave, 60Hz, resistive or inductive loaded.
For capacitive load, derate current by 20% .

PARAMETER	SYMBOL	ACSFB304	ACSFB306	ACSFB308	UNIT
Maximum repetitive peak reverse voltage	V_{RRM}	200	400	600	V
Maximum RMS voltage	V_{RMS}	140	280	420	V
Maximum DC blocking voltage	V_{DC}	200	400	600	V
Maximum 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
Maximum Instantaneous Forward Voltage $I_F=3A @ 25^{\circ}\text{C}$	V_F	0.98	1.3	1.75	V
Maximum 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(NOTE1)	C_j	60			pF
Maximum Reverse Recovery Time(NOTE2)	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			$^{\circ}\text{C}$

NOTES:

- 1.Measured at 1.0MHZ and applied reverse voltage of 4.0V DC
- 2.Measured with $I_F=0.5A$, $I_R=1A$, $IRR=0.25A$
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.

RATING AND CHARACTERISTIC CURVES (ACSF304-HF thru. ACSFB308-HF)

FIG. 1-Typical Forward Current Derating Curve

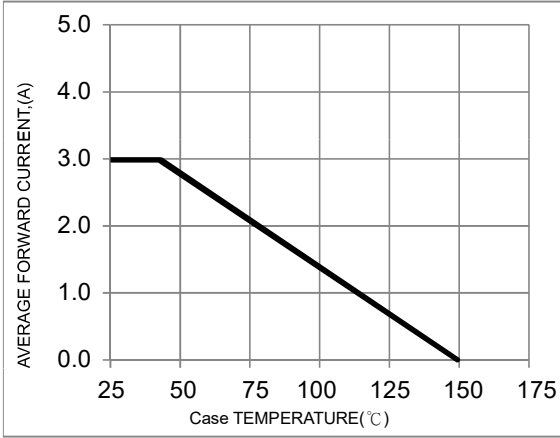


FIG. 2-Typical Forward Characteristics

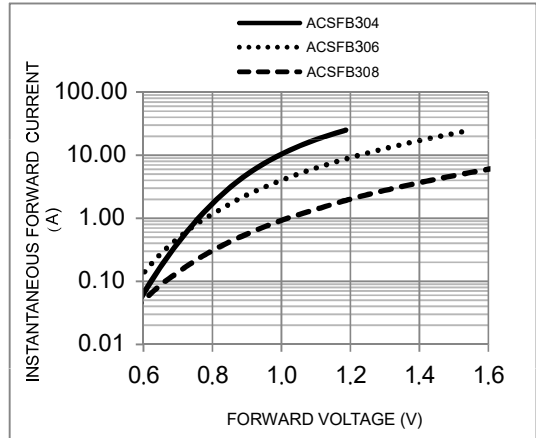


FIG. 3-Maximum Non-Repetitive Forward Surge Current

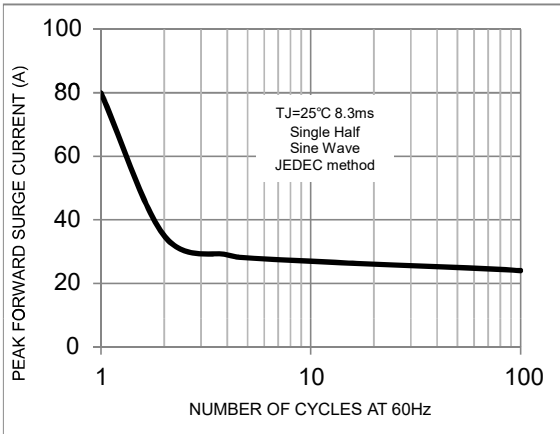


FIG. 4-Typical Reverse Characteristics

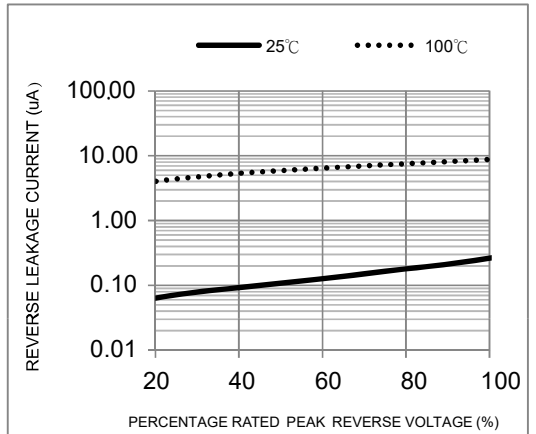


FIG. 5-Typical Junction Capacitance

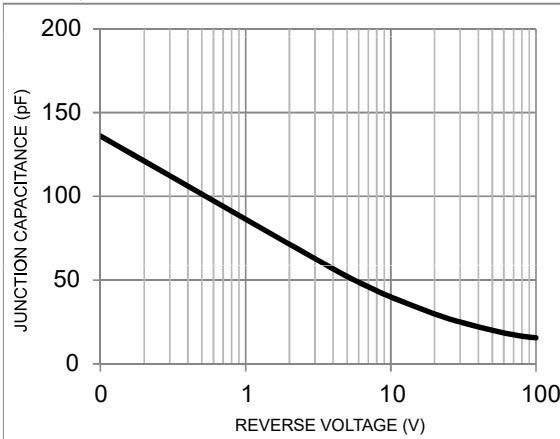
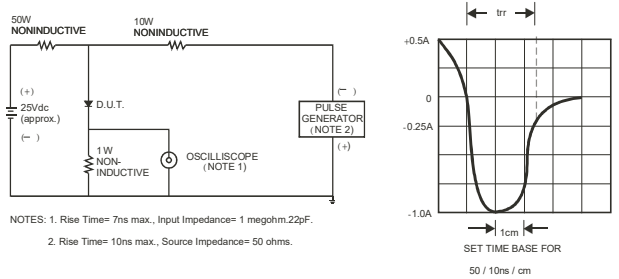
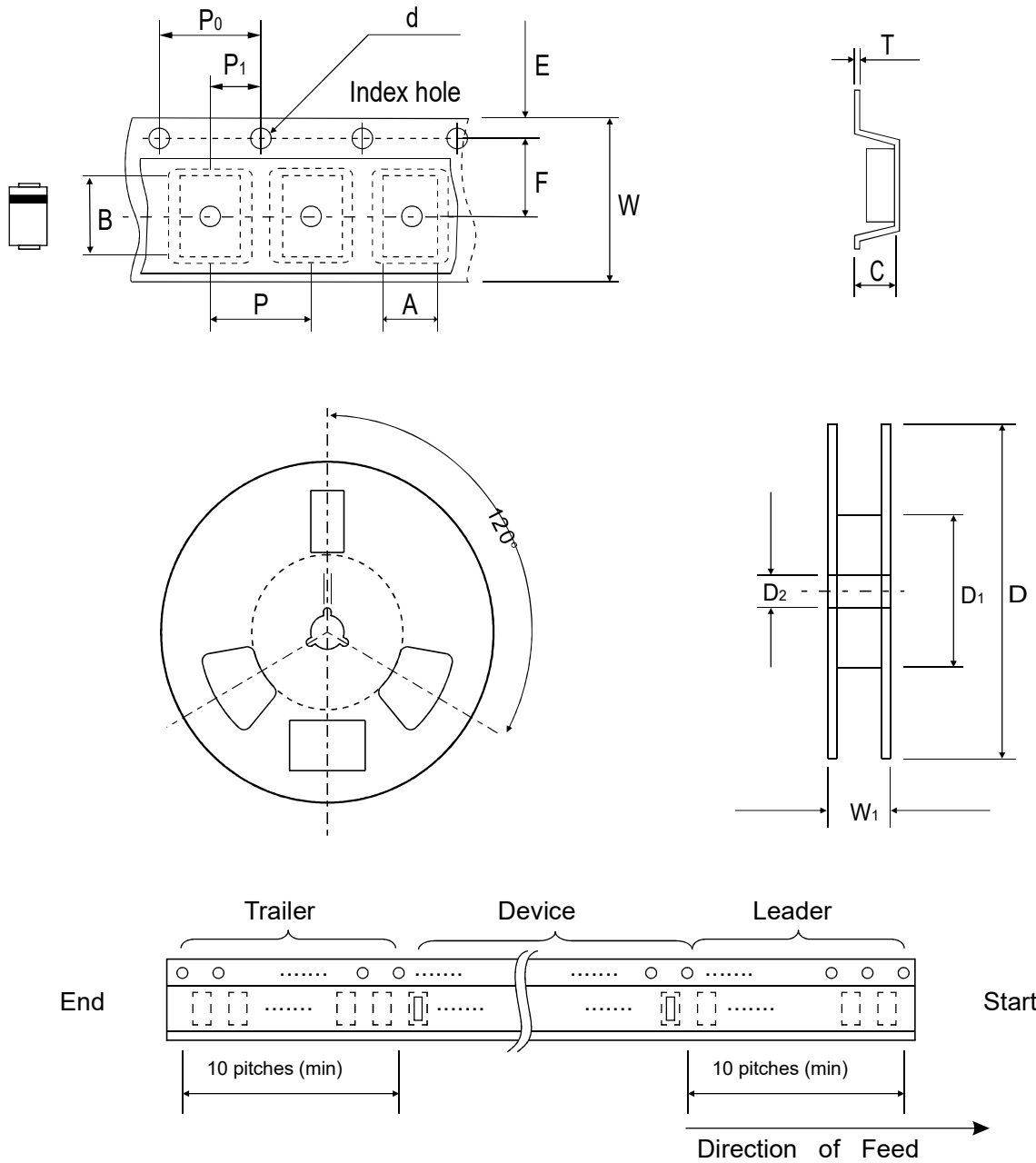


FIG. 6-Reverse Recovery Time Characteristic and Test Circuit



Reel Taping Specification



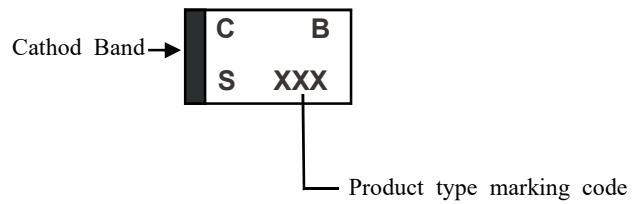
DO-214AA (SMB)	SYMBOL	A	B	C	d	D	D1	D2
	(mm)	4.00 ± 0.10	5.90 ± 0.10	3.00 ± 0.10	1.50 ± 0.10	330 ± 2.00	50.0 MIN.	13.50 ± 0.50
	(inch)	0.157 ± 0.004	0.232 ± 0.004	0.118 ± 0.004	0.059 ± 0.004	12.99 ± 0.079	1.969 MIN.	0.531 ± 0.020

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

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

Marking Code

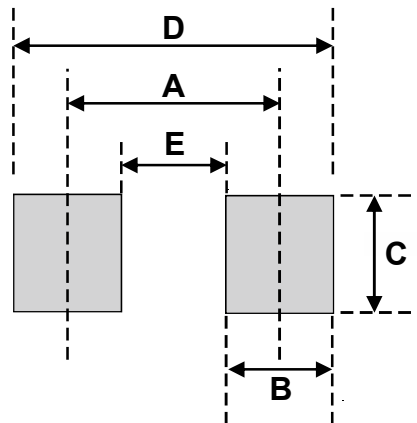
Part Number	Marking Code
ACSFB304-HF	304
ACSFB306-HF	306
ACSFB308-HF	308



xxxxxx = Product type marking code

Suggested PAD Layout

SIZE	DO-214AA (SMB)	
	(mm)	(inch)
A	4.30	0.169
B	2.50	0.098
C	2.30	0.091
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