

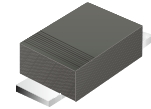
CDBMS120A-HF Thru. CDBMS1200A-HF

Reverse Voltage: 20 to 200 Volts

Forward Current: 1 Amp

RoHS Device

Halogen Free

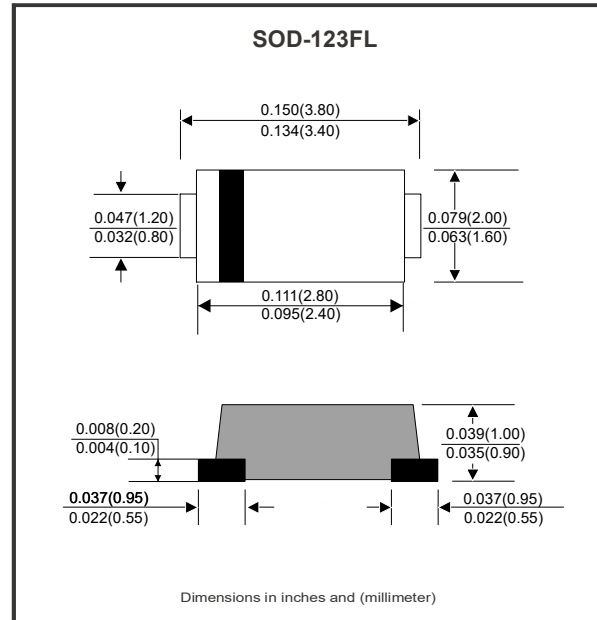


Features

- The plastic package carries Underwriters Laboratory Flammability Classification 94V-0
- Metal silicon junction, majority carrier conduction
- Low power loss, high efficiency
- High temperature soldering guaranteed: 260 °C / 10 seconds, 0.375" (9.5mm) lead length, 5 lbs. (2.3kg) tension

Mechanical data

- Case: SOD-123FL, molded plastic
- Terminals: plated leads solderable per MIL-STD-750, Method 2026
- Polarity: Color band denotes cathode end
- Mounting position: Any



Maximum Ratings and Electrical Characteristics (At Ta=25°C, unless otherwise noted)

Rating at 25°C ambient temperature unless otherwise specified.

Single Phase, half wave, 60Hz, resistive or inductive load.

For capacitive load, derate current by 20%.

Parameter	Symbol	CDBMS									Unit
		120A	130A	140A	150A	160A	180A	1100A	1150A	1200A	
Repetitive peak reverse voltage	V_{RRM}	20	30	40	50	60	80	100	150	200	V
RMS voltage	V_{RMS}	14	21	28	35	42	56	70	105	140	V
DC blocking voltage	V_{DC}	20	30	40	50	60	80	100	150	200	V
Average Rectified Output current @ $T_L=90^\circ C$	I_F	1.0									A
Forward voltage per element $I_F=1.0A$	V_F	0.55		0.7		0.85		0.92		V	
Non-Repetitive Peak forward surge current, 8.3ms single half sine-wave superimposed on rated load (JEDEC methode)	I_{FSM}	30									A
Peak Reverse current @ $T_A=25^\circ C$ at Rated DC blocking voltage @ $T_A=100^\circ C$	I_R	0.1			0.05			5			mA
Typical Thermal Resistance Junction to Ambient	$R_{\theta J}$	20									°C/W
Operating temperature range	T_J	-55 to +150									°C
Storage temperature range	T_{STG}	-55 to +150									°C

RATING AND CHARACTERISTIC CURVES (CDBMS120A-HF thru CDBMS1200A-HF)

Fig.1 - Typical Forward Current Derating Curve

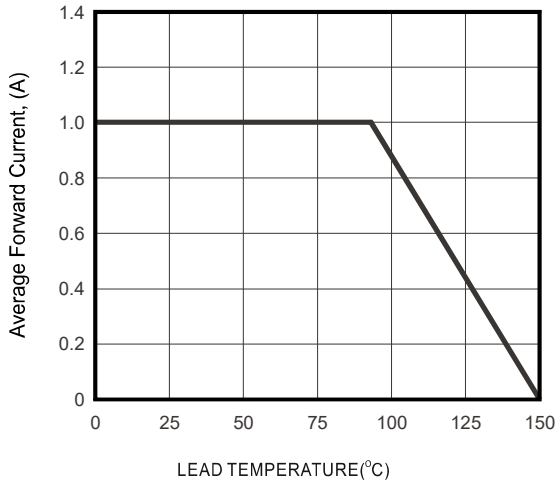


Fig.2 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

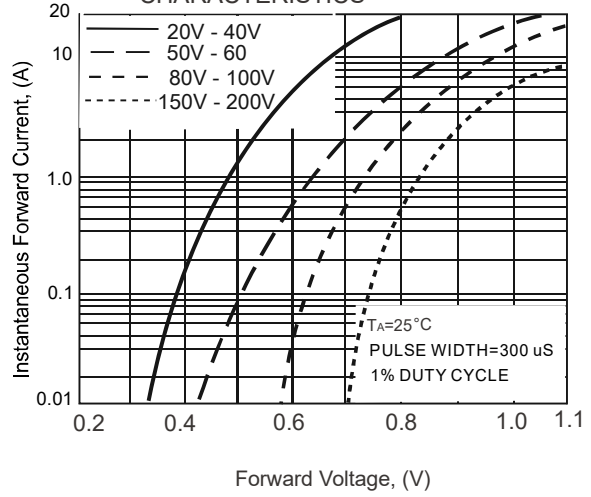


Fig.3 - Maximum Non-repetitive Forward Surge Current

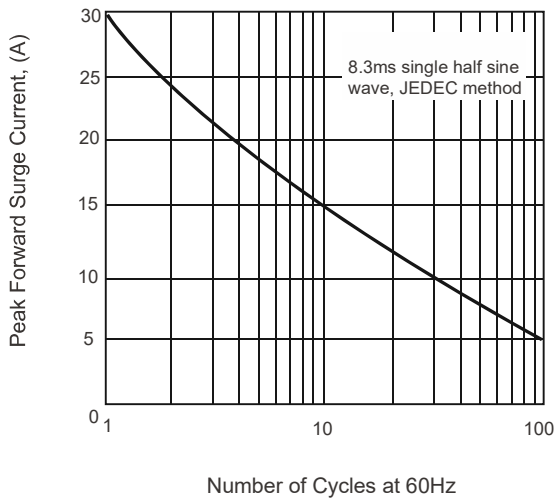
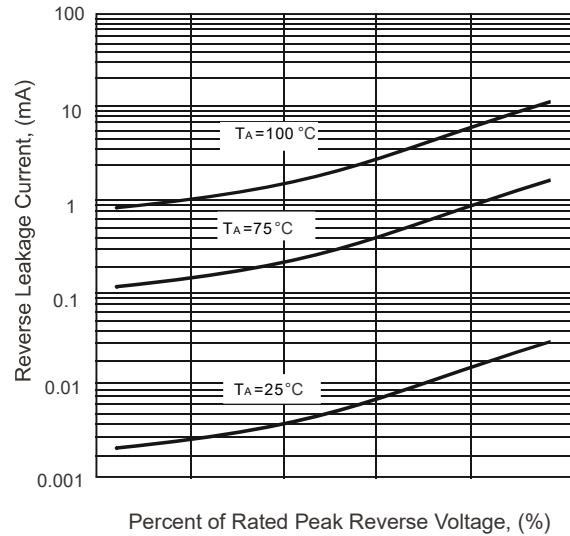
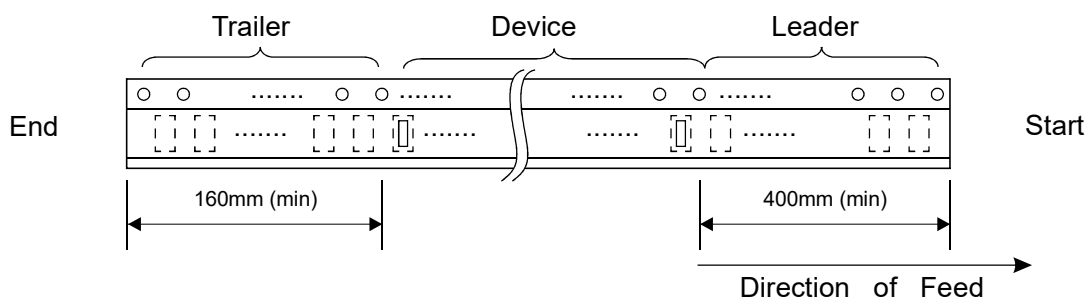
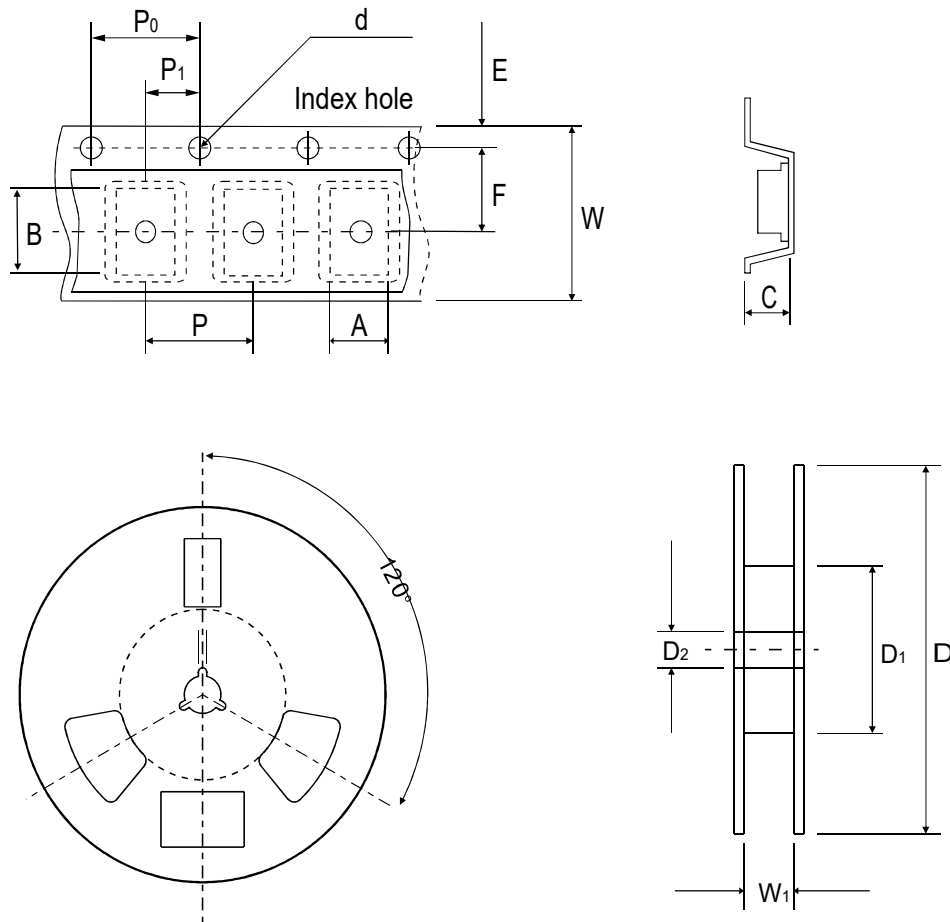


Fig.4 - Typical Reverse Characteristics



Reel Taping Specification



SOD-123F	SYMBOL	A	B	C	d	D	D1	D2
	(mm)	3.00 ± 0.10	5.60 ± 0.10	1.20 ± 0.10	1.50 ± 0.10	330 ± 2.00	50.00 Min.	13.50 ± 1.00
	(inch)	0.118 ± 0.004	0.220 ± 0.004	0.047 ± 0.004	0.059 ± 0.004	13.00 ± 0.079	1.969 Min.	0.531 ± 0.039

SOD-123F	SYMBOL	E	F	P	P0	P1	W	W1
	(mm)	1.75 ± 0.10	5.50 ± 0.05	4.00 ± 0.10	4.00 ± 0.05	2.00 ± 0.05	12.00 ± 0.20	18.40 Max.
	(inch)	0.069 ± 0.004	0.217 ± 0.002	0.158 ± 0.004	0.158 ± 0.002	0.079 ± 0.002	0.472 ± 0.008	0.724 Max.

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

REV:A

Marking Code

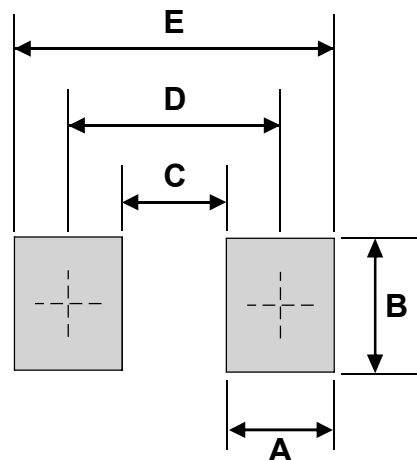
Part Number	Marking Code
CDBMS120A-HF	D12
CDBMS130A-HF	D13
CDBMS140A-HF	D14
CDBMS150A-HF	D15
CDBMS160A-HF	D16
CDBMS180A-HF	D18
CDBMS1100A-HF	D110
CDBMS1150A-HF	D115
CDBMS1200A-HF	D120



XXXX = Product type marking code

Suggested PAD Layout

SIZE	SOD-123F	
	(mm)	(inch)
A	1.34	0.053
B	1.80	0.071
C	1.52	0.060
D	2.86	0.113
E	4.20	0.165



Note:

1. The pad layout is for reference purposes only.

Standard Packaging

Case Type	REEL PACK	
	REEL (pcs)	Reel Size (inch)
SOD-123F	3,000	13

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REV:A