

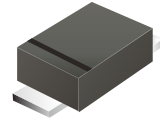
## CDBMS140-HF Thru. CDBMS1200-HF

Reverse Voltage: 40 to 200 Volts

Forward Current: 1.0 Amp

RoHS Device

Halogen Free

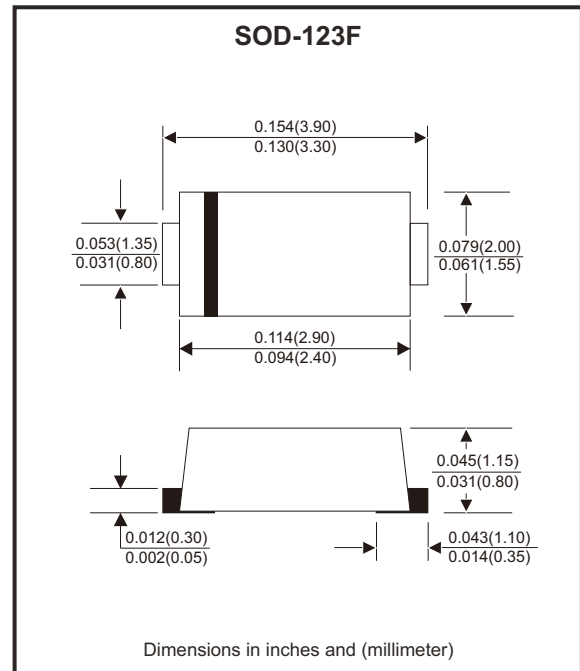


### Features

- High current capability.
- Extremely low thermal resistance.
- For surface mount application.
- Low forward voltage.

### Mechanical data

- Epoxy: UL 94V0 rated flame retardant.
- Case: SOD-123F, molded plastic.
- Terminals: Lead Free Plating (Tin Finish)  
Solderable per MIL-STD-202, method 208.
- Polarity: Indicated by cathode band.
- Weight: 0.022 grams (Approx.)



### Circuit Diagram



### Maximum Ratings (at TA=25°C unless otherwise noted)

Parameter	Symbol	CDBMS					Unit
		140-HF	160-HF	1100-HF	1150-HF	1200-HF	
Max. Repetitive peak reverse voltage	$V_{RRM}$	40	60	100	150	200	V
Max. RMS voltage	$V_{RMS}$	28	42	70	105	140	V
Max. DC blocking voltage	$V_{DC}$	40	60	100	150	200	V
Max. Average forward rectified current	$I_F$	1.0					A
Max. Instantaneous forward voltage $I_F=1.0A @T_A=25^\circ C$	$V_F$	0.52	0.66	0.83	0.87	0.90	V
Peak forward surge current, 8.3ms single half sine-wave superimposed on rated load (JEDEC methode)	$I_{FSM}$	30					A
Max. DC reverse current @ $T_A=25^\circ C$ at Rated DC blocking voltage @ $T_A=100^\circ C$	$I_R$	0.5 20			0.2 10		mA
Typical junction capacitance (Note 1)	$C_J$	60		25			pF
Typical thermal resistance	$R_{\theta C}$	45					°C/W
Operating temperature range	$T_J$	-50 to +125			-50 to +150		°C
Storage temperature range	$T_{STG}$	-55 to +150					°C

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

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REV:B

## Rating and Characteristic Curves (CDBMS140-HF Thru. CDBMS1200-HF)

Fig.1 - Typical Forward Current Derating Curve

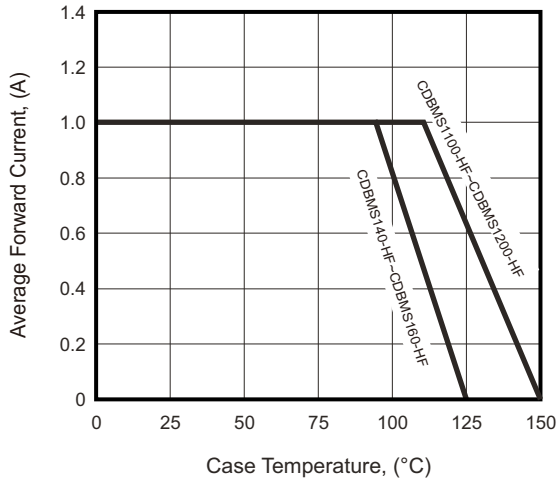


Fig.2 - Typical Forward Characteristics

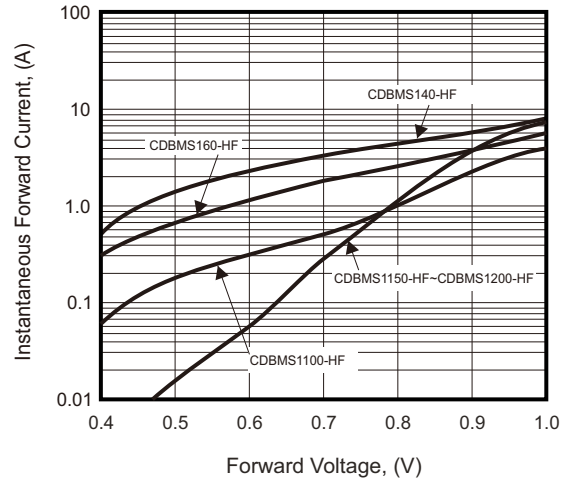


Fig.3 - Maximum Non-repetitive Forward Surge Current

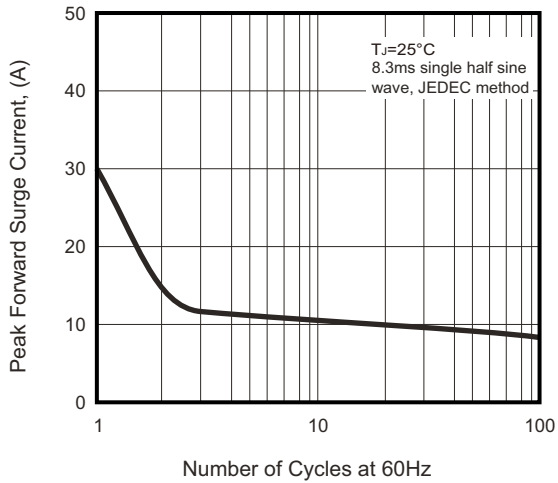


Fig.4 - Typical Reverse Characteristics

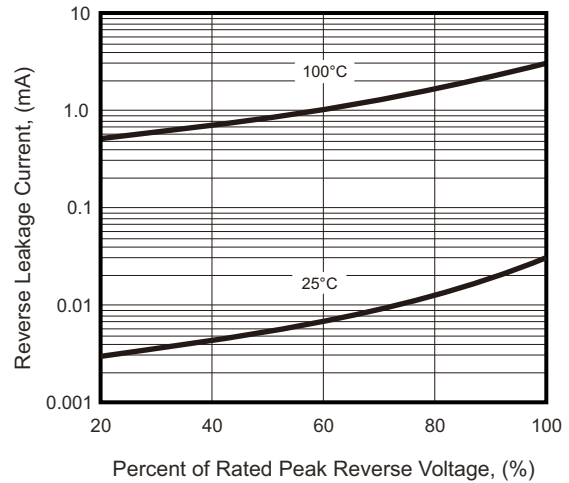
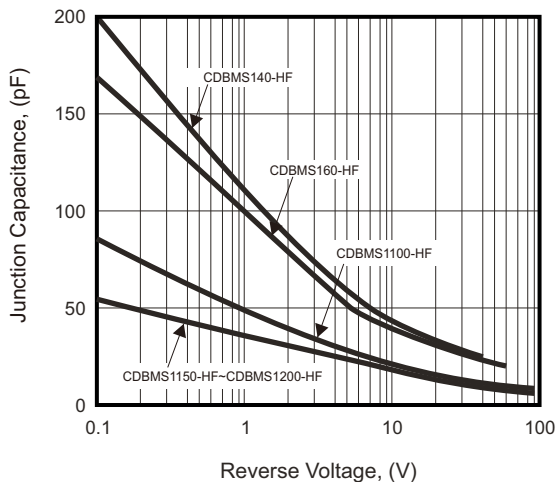
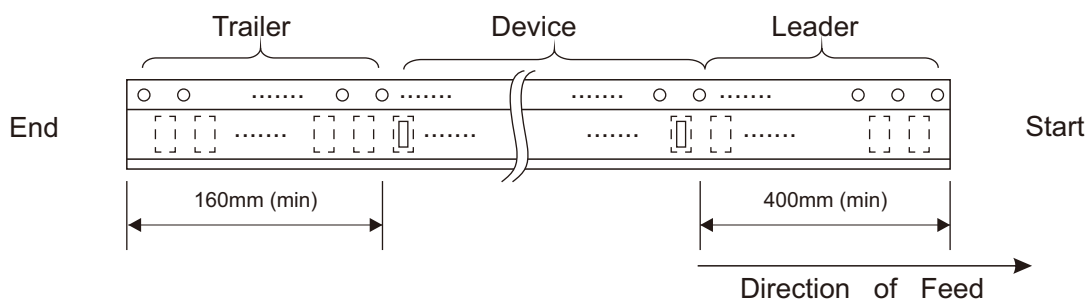
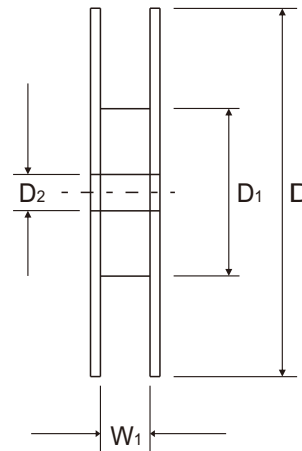
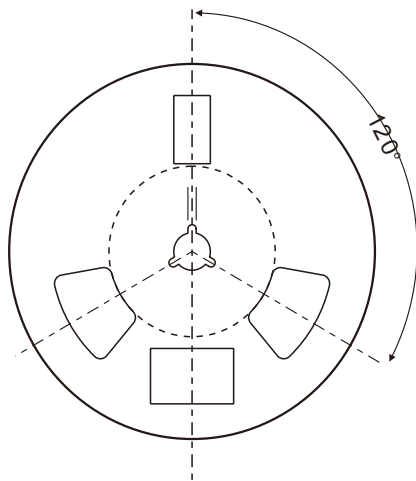
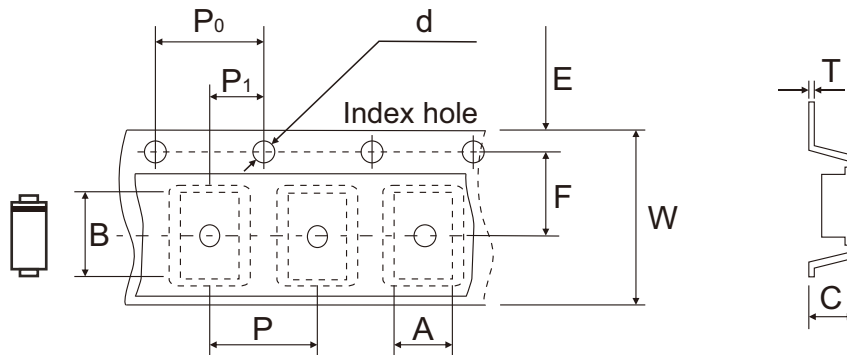


Fig.5 - Typical Junction Capacitance



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## Reel Taping Specification



SOD-123F	SYMBOL	A	B	C	d	D	D1	D2
	(mm)	$2.05 \pm 0.10$	$4.01 \pm 0.10$	$1.32 \pm 0.10$	$2.00 \pm 0.10$	178 Max.	50 Min.	$13.30 \pm 1.00$
(inch)	$0.081 \pm 0.004$	$0.158 \pm 0.004$	$0.052 \pm 0.004$	$0.079 \pm 0.004$	7.008 Max.	1.969 Min.	$0.524 \pm 0.039$	

SOD-123F	SYMBOL	E	F	P	$P_0$	$P_1$	T	W	$W_1$
	(mm)	$1.75 \pm 0.10$	$3.50 \pm 0.10$	$4.00 \pm 0.10$	$4.00 \pm 0.10$	$2.00 \pm 0.05$	$0.24 \pm 0.03$	$8.00 \pm 0.30$	$9.30 \pm 1.00$
(inch)	$0.069 \pm 0.004$	$0.138 \pm 0.004$	$0.157 \pm 0.004$	$0.157 \pm 0.004$	$0.079 \pm 0.002$	$0.009 \pm 0.001$	$0.315 \pm 0.012$	$0.366 \pm 0.039$	

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## Marking Code

Part Number	Marking Code
CDBMS140-HF	C4.
CDBMS160-HF	C6.
CDBMS1100-HF	CA.
CDBMS1150-HF	CB.
CDBMS1200-HF	CC.

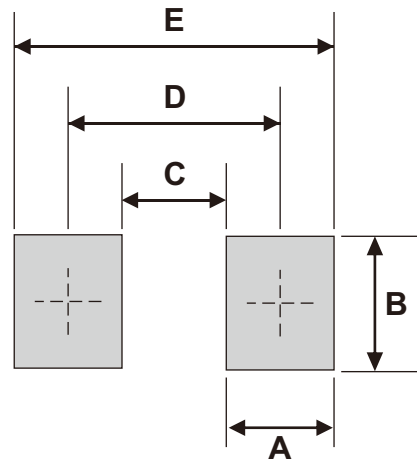


**XX = Product type marking code**

**“ . ” = Halogen Free**

## 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	7

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