

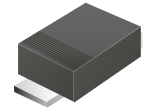
## CDBMF160-HF

Reverse Voltage: 60 Volts

Forward Current: 1 Amp

RoHS Device

Halogen Free

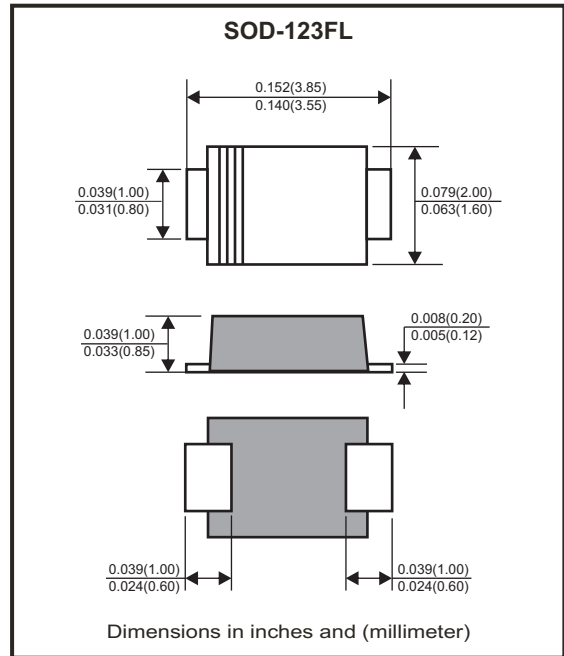


### Features

- Ideal for surface mount applications.
- Easy pick and place.
- Plastic package has Underwriters Lab. Flammability Classification 94V-0
- Exceeds environmental standard MIL-S-19500/228.
- Low leakage current.

### Mechanical data

- Case: Mini SMA/SOD-123FL, molded plastic
- Terminals: Solderable per MIL-STD-750 Method 2026.
- Polarity: Color band denotes cathode end
- Weight: 0.018 grams(approx.).



### Circuit diagram



### Maximum Rating (at $T_A=25^{\circ}\text{C}$ unless otherwise noted)

Parameter	Symbol	Value	Unit
Max. Repetitive peak reverse voltage	$V_{RRM}$	60	V
Max. RMS voltage	$V_{RMS}$	42	V
Max. DC blocking voltage	$V_{DC}$	60	V
Max. Peak forward surge current 8.3ms single half sine-wave JEDEC method)	$I_{FSM}$	30	A
Average forward current	$I_o$	1	A
Typ. Thermal resistance (Note 2)	Junction to Ambient	$R_{\theta JA}$	90 $^{\circ}\text{C/W}$
Junction temperature range	$T_J$	-40 to +125	$^{\circ}\text{C}$
Storage temperature range	$T_{STG}$	-65 to +150	$^{\circ}\text{C}$

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

Parameter	Conditions	Symbol	Min.	Typ.	Max.	Unit
Max. Forward voltage (Note 1)	$I_F = 1\text{A}$	$V_F$		620	700	mV
DC reverse current $T_J=25^{\circ}\text{C}$	$V_R = 60\text{V}$	$I_R$		10	100	$\mu\text{A}$
Junction capacitance	$f = 1\text{MHz}, V_R = 4\text{V}$	$C_J$		35		pF

Notes: 1. Pulse test with  $P_w=300\mu\text{sec}$ , 1% duty cycle  
2. Mounted on 50cm<sup>2</sup> FR-4 PCB board.

## RATING AND CHARACTERISTIC CURVES (CDBMF160-HF)

Fig.1 - Typical Forward Current Derating Curve

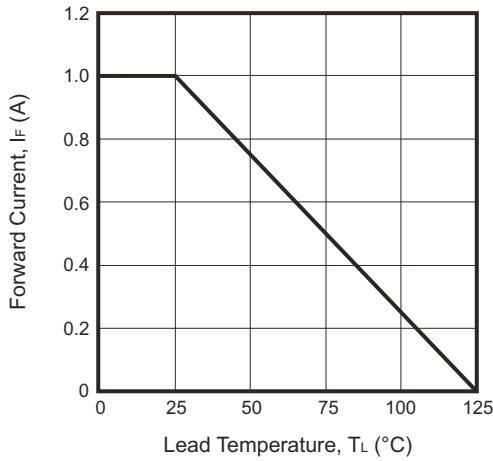


Fig.2 - Typical Forward Characteristics

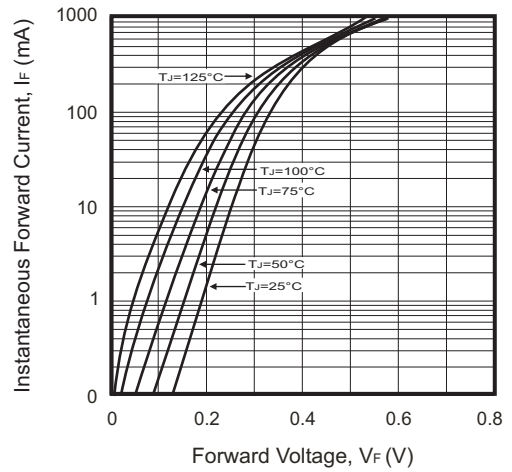


Fig.3 - Maximum Non-Repetitive Forward Surge Current

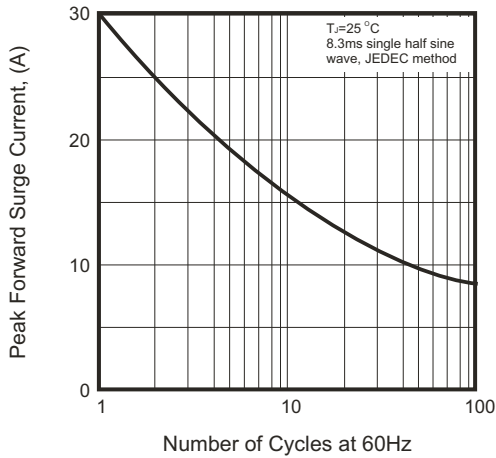


Fig.4 - Typical Reverse Characteristics

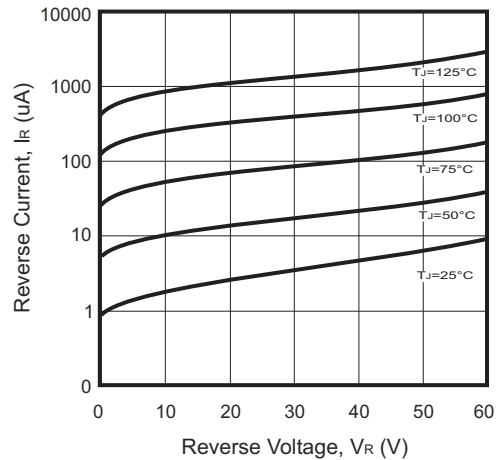
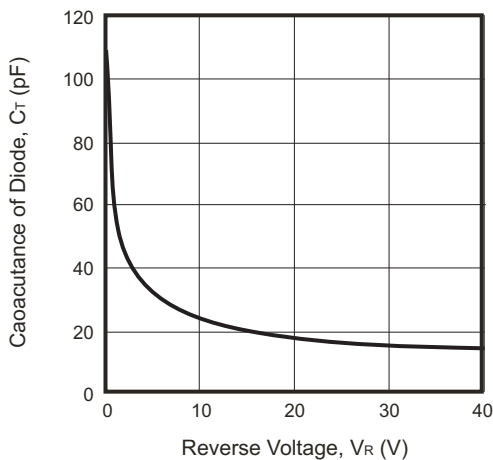
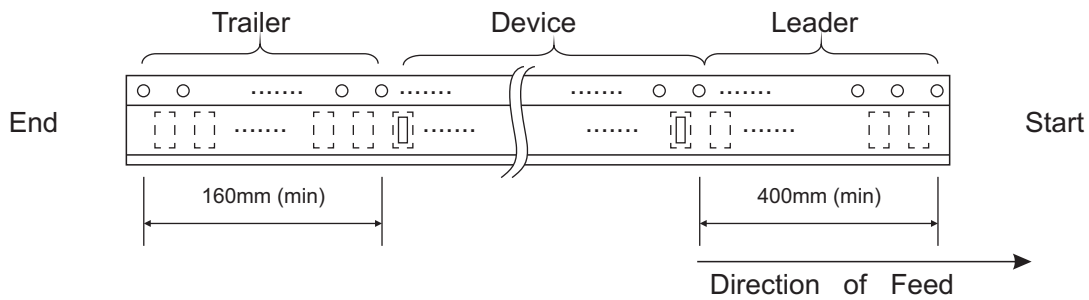
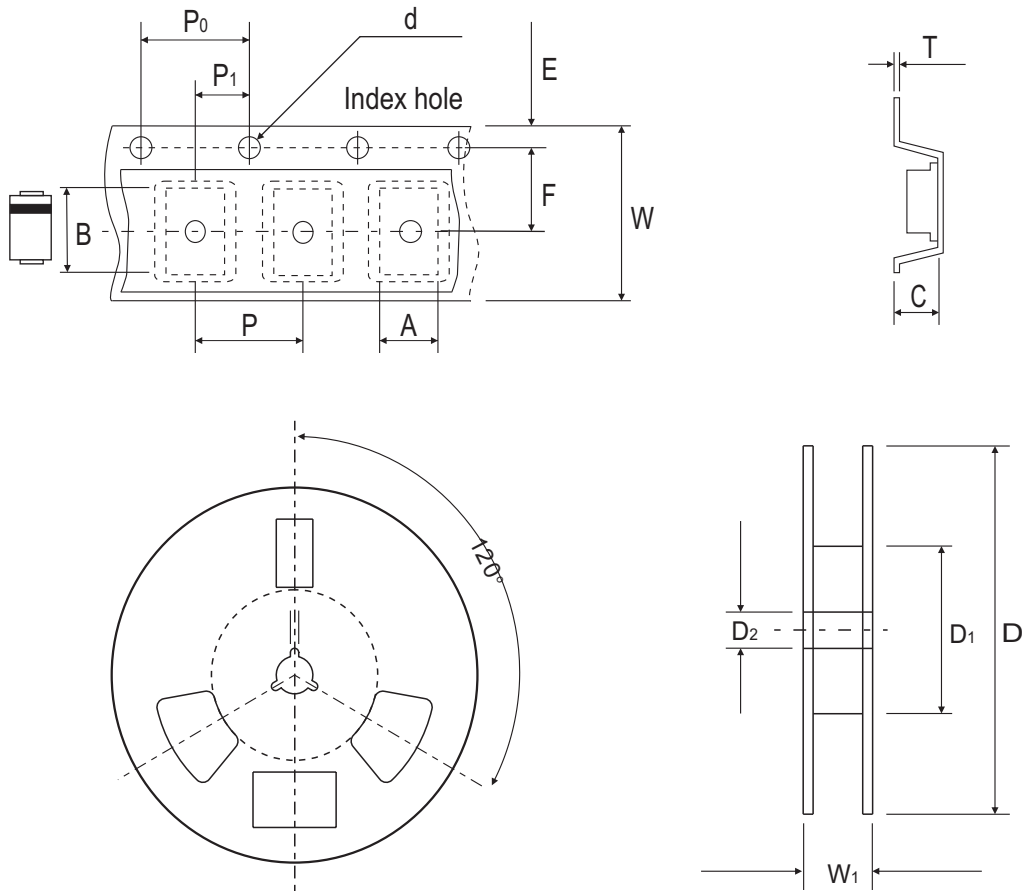


Fig.5 - Typical Capacitance of Diodes



## Reel Taping Specification



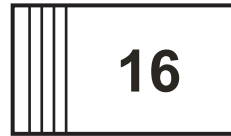
	SYMBOL	A	B	C	d	D	D1	D2
Mini-SMA/SOD-123FL	(mm)	2.00 ± 0.10	4.00 ± 0.10	1.45 ± 0.10	1.55 ± 0.10	178 MAX.	62.00 MIN.	13.00 ± 0.20
	(inch)	0.079 ± 0.04	0.157 ± 0.04	0.057 ± 0.04	0.061 ± 0.004	7.008 MAX.	2.441 MIN.	0.512 ± 0.008

	SYMBOL	E	F	P	P0	P1	T	W	W1
Mini-SMA/SOD-123FL	(mm)	1.75 ± 0.10	3.50 ± 0.05	4.00 ± 0.10	4.00 ± 0.10	2.00 ± 0.05	0.23 ± 0.10	8.00 ± 0.30	11.4 MIN.
	(inch)	0.069 ± 0.004	0.138 ± 0.002	0.157 ± 0.004	0.157 ± 0.004	0.079 ± 0.002	0.009 ± 0.004	0.315 ± 0.012	0.449 MIN.

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

## Marking Code

Part Number	Marking Code
CDBMF160-HF	16

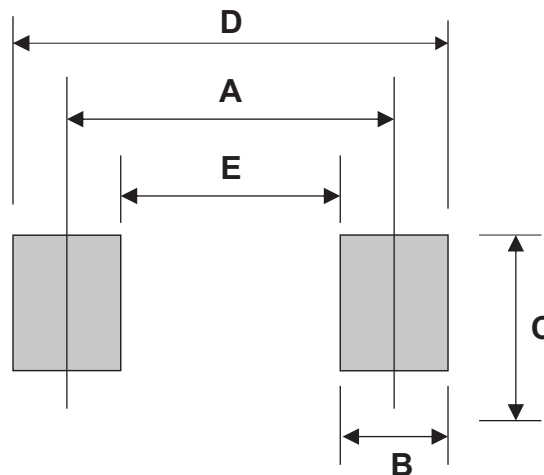


|||| = Cathod band

xx = Product type marking code

## Suggested PAD Layout

SIZE	Mini-SMA/SOD-123FL	
	(mm)	(inch)
A	3.47	0.137
B	0.78	0.031
C	1.22	0.048
D	4.25	0.167
E	2.70	0.106



## Standard Packaging

Case Type	REEL PACK	
	REEL ( pcs )	Reel Size (inch)
Mini-SMA / SOD-123FL	3,000	7