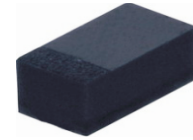


## CDBFR03100-HF

**$I_o = 300 \text{ mA}$**   
 **$V_R = 100 \text{ Volts}$**   
**RoHS Device**  
**Halogen Free**



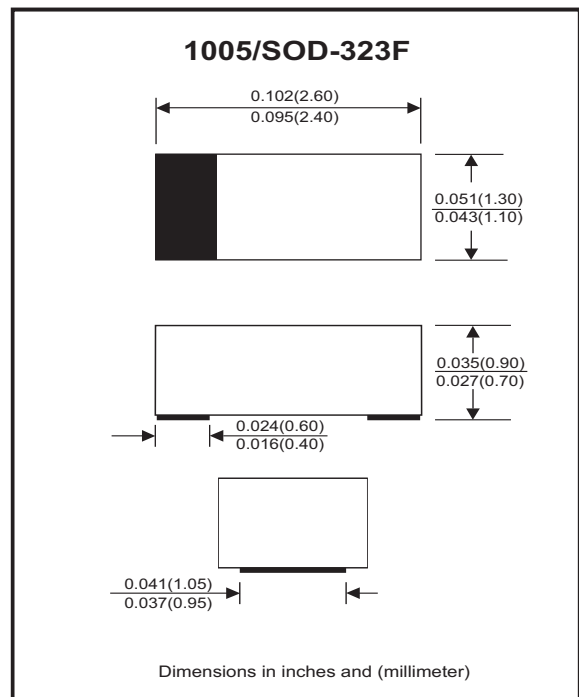
### Features

- Designed for mounting on small surface.
- Extremely thin/leadless package.
- Low drop-down voltage.
- Majority carrier conduction.

### Mechanical data

- Case: 1005/SOD-323F standard package, molded plastic.
- Terminals: Gold plated, solderable per MIL-STD-750, method 2026
- Polarity: Indicated by cathode band.
- Mounting position: Any
- Weight: 0.006 grams(approx.).

### Circuit Diagram



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

Parameter	Conditions	Symbol	Value	Unit
Max. Repetitive peak reverse voltage		$V_{RRM}$	100	V
Max. RMS voltage		$V_{RMS}$	70	V
Max. Reverse voltage		$V_R$	100	V
Max. Average forward current		$I_o$	300	mA
Max. Forward surge current	8.3 ms single half sine-wave superimposed on rate load (JEDEC method)	$I_{FSM}$	3	A
Power dissipation		$P_D$	200	mW
Junction temperature range		$T_j$	-40 to +150	$^\circ\text{C}$
Storage temperature range		$T_{STG}$	-55 to +150	$^\circ\text{C}$

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

Parameter	Conditions	Symbol	Min	Typ	Max	Unit
Forward voltage	$I_F = 300\text{mA}$	$V_F$		0.75	0.82	V
Reverse current	$V_R = 100\text{V}$	$I_R$			50	$\mu\text{A}$
Capacitance between terminals	$f = 1\text{MHz}, V_R = 1\text{V}$	$C_T$		25		pF

Notes: Pulse test with  $PW=300\mu\text{sec}$ , 1% duty cycle

## RATING AND CHARACTERISTIC CURVES (CDBFR03100-HF)

Fig.1 - Typical Forward Characteristics

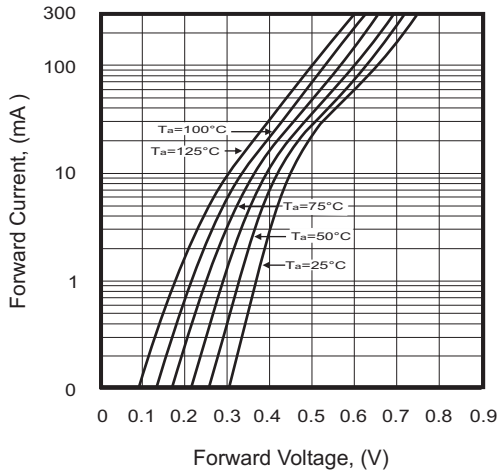


Fig.2 - Typical Reverse Characteristics

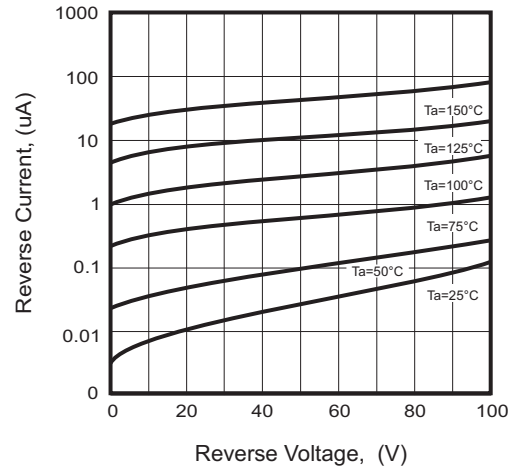


Fig.3 - Typical Capacitance Between Terminals Characteristics

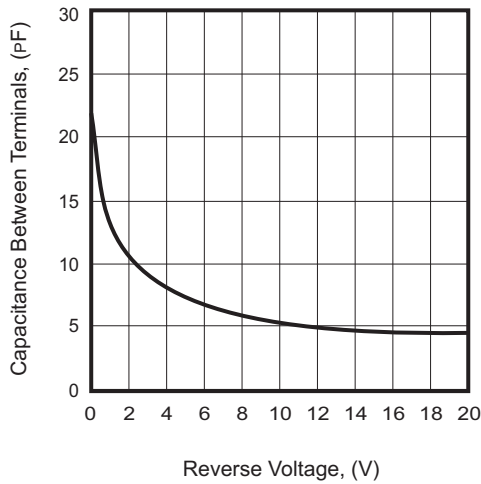
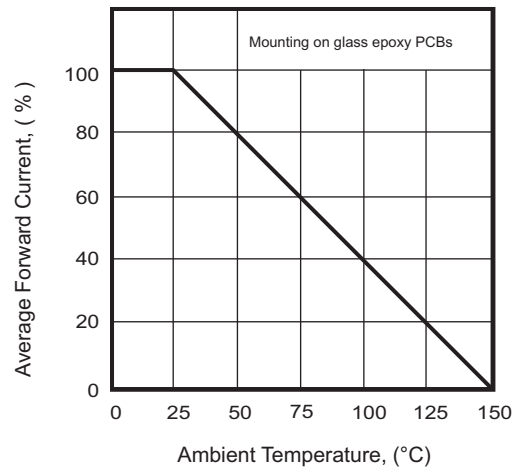
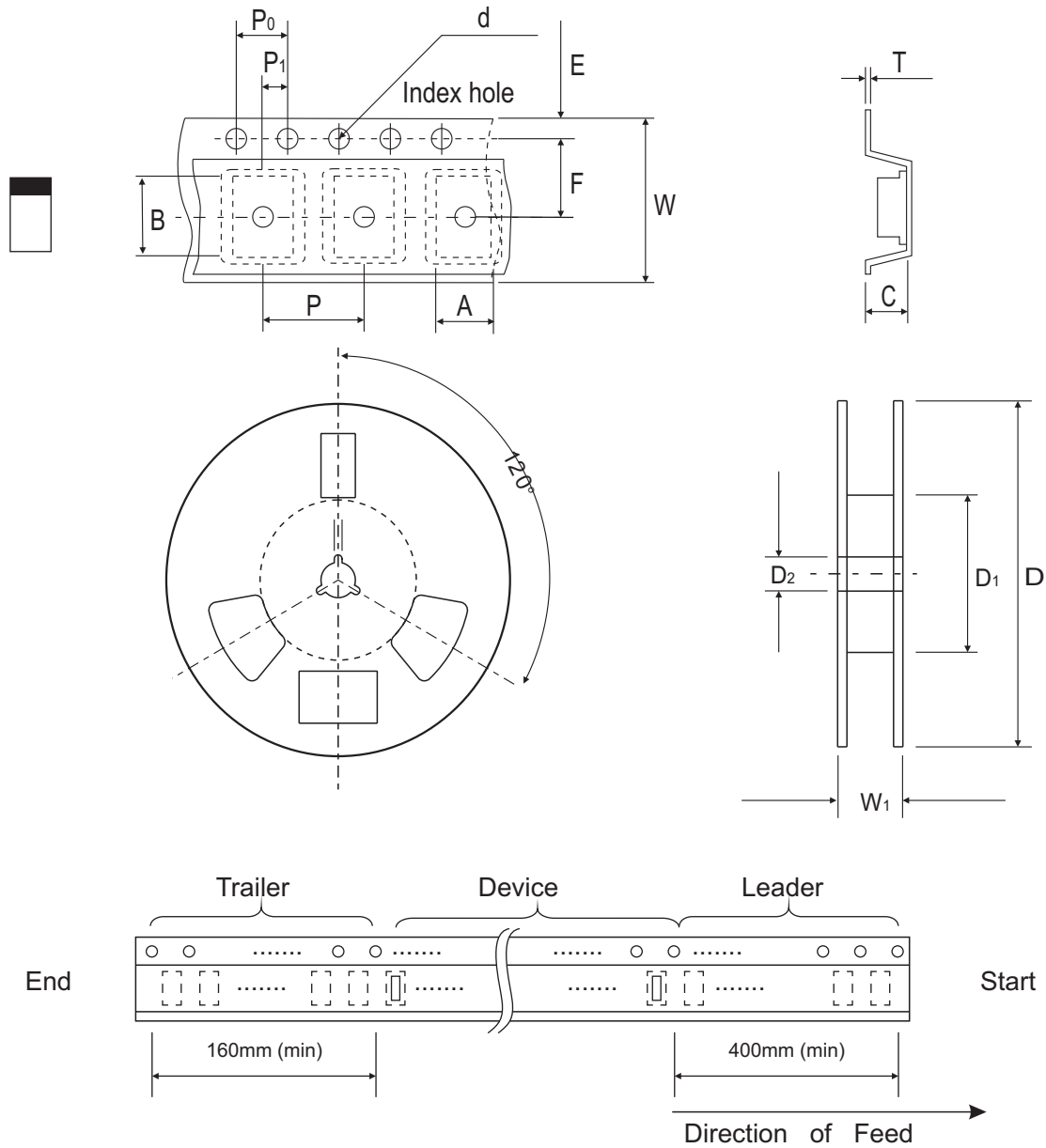


Fig.4 - Current Derating Curve



## Reel Taping Specification



1005 / SOD-323F	SYMBOL	A	B	C	d	D	D <sub>1</sub>	D <sub>2</sub>
	(mm)	1.45 ± 0.05	2.80 ± 0.05	1.00 ± 0.05	1.50 + 0.10 - 0	178.00 ± 1.00	60.00 ± 0.50	13.50 ± 0.20
	(inch)	0.057 ± 0.002	0.110 ± 0.002	0.039 ± 0.002	0.059 + 0.004 - 0	7.008 ± 0.039	2.362 ± 0.020	0.531 ± 0.008

1005 / SOD-323F	SYMBOL	E	F	P	P <sub>0</sub>	P <sub>1</sub>	T	W	W <sub>1</sub>
	(mm)	1.75 ± 0.10	3.50 ± 0.05	4.00 ± 0.10	4.00 ± 0.10	2.00 ± 0.05	0.23 ± 0.05	8.00 ± 0.10	12.00 + 0.50 - 0
	(inch)	0.069 ± 0.004	0.138 ± 0.002	0.157 ± 0.004	0.157 ± 0.004	0.079 ± 0.002	0.008 ± 0.002	0.315 ± 0.004	0.472 + 0.020 - 0

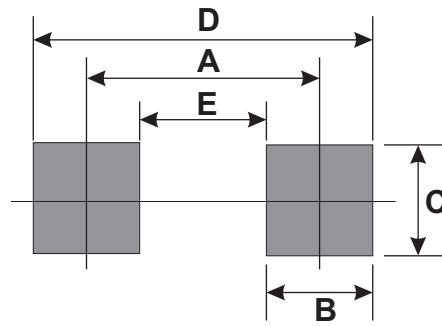
## Marking Code

Part Number	Marking Code
CDBFR03100-HF	BS



## Suggested PAD Layout

SIZE	1005/SOD-323F	
	(mm)	(inch)
A	2.00	0.079
B	0.70	0.028
C	1.30	0.051
D	2.70	0.106
E	1.30	0.051



## Standard Packaging

Case Type	Qty per Reel	Reel Size
	(Pcs)	(inch)
1005/SOD-323F	4,000	7