

SMD Schottky Barrier Diode

CDBF0320/0330/0340-HF

$I_O = 350$ mA

$V_R = 20$ to 40 Volts

RoHS Device

Halogen Free

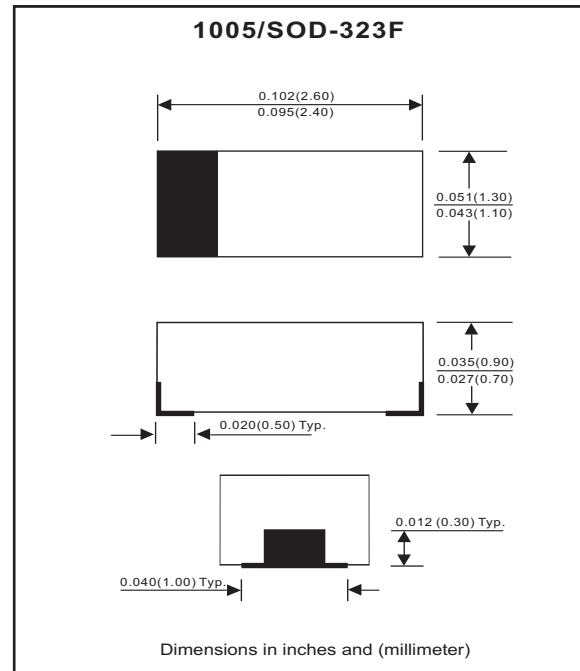


Features

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

Mechanical data

- Case: 1005/SOD-323F standard package, molded plastic.
- Terminals: Gold plated, solderable per MIL-STD-750, method 2026.
- Marking code:
 - CDBF0320-HF : BH
 - CDBF0330-HF : BJ
 - CDBF0340-HF : BK
- Mounting position: Any
- Weight: 0.006 gram(approx.).



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

Parameter	Symbol	CDBF0320	CDBF0330	CDBF0340	Unit
Repetitive Peak reverse voltage	V_{RRM}	20	30	40	V
Reverse voltage	V_R				
RMS reverse voltage	$V_{R(RMS)}$	14	21	28	V
Average forward rectified current	I_O	350			mA
Forward current, surge peak 8.3 ms single half sine-wave	I_{FSM}	1.5			A
Power dissipation	P_D	200			mW
Thermal resistance junction to ambient air	$R_{\theta JA}$	500			$^{\circ}\text{C}/\text{W}$
Storage temperature	T_{STG}	-65 TO +125			$^{\circ}\text{C}$
Junction temperature	T_j	+125			$^{\circ}\text{C}$

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

Parameter	Conditions	Symbol	Min	Typ	Max	Unit
Reverse current CDBF0320-HF CDBF0330-HF CDBF0340-HF	$V_R = 10\text{V}$ $V_R = 20\text{V}$ $V_R = 30\text{V}$	I_R			5 5 5	μA
Forward voltage	$I_F = 20\text{mA}$ $I_F = 200\text{mA}$	V_F			0.37 0.60	V
Capacitance between terminals	$f = 1\text{ MHz}$, and 0 VDC reverse voltage	C_T		50		pF
Reverse recovery time	$I_F=I_R=10\text{mA}$, $I_{rr}=0.1 \times I_R$, $R_L=100\text{ ohm}$	T_{rr}		6.4		nS

RATING AND CHARACTERISTIC CURVES (CDBF0320/0330/0340-HF)

Fig. 1 - Forward characteristics

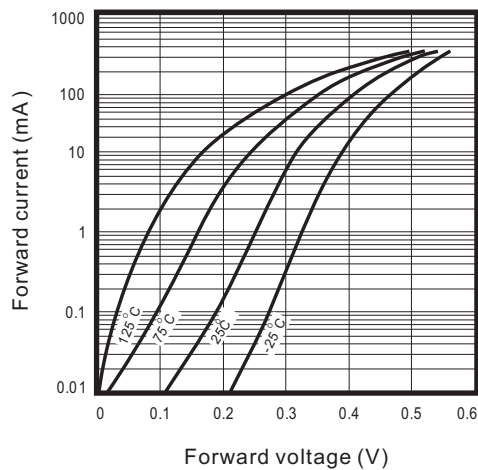


Fig. 2 - Reverse characteristics

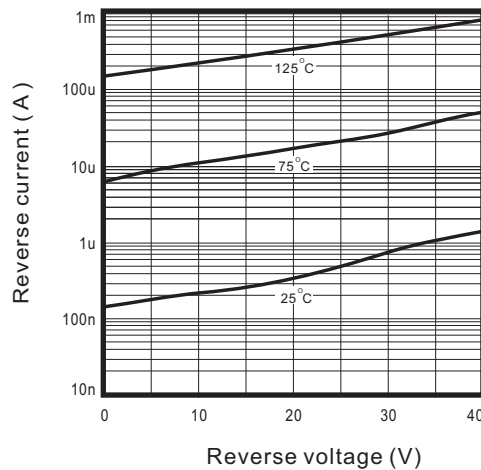


Fig.3 - Capacitance between terminals characteristics

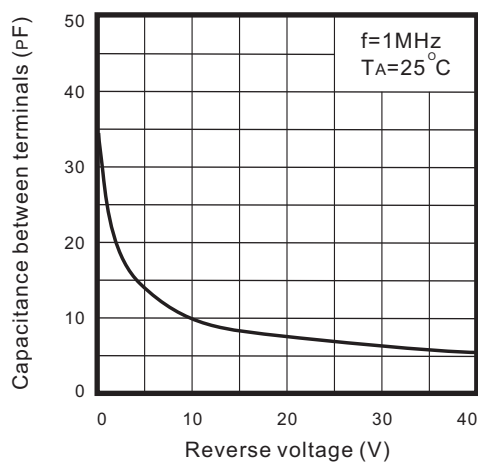
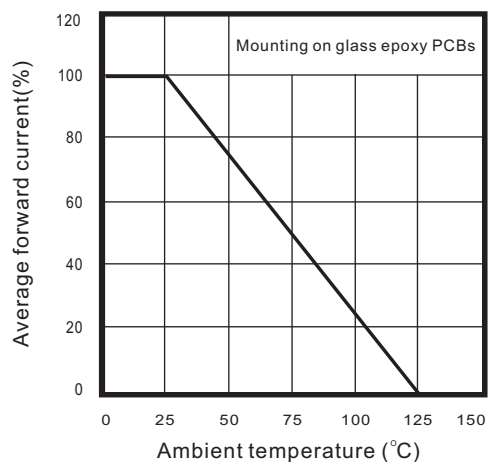
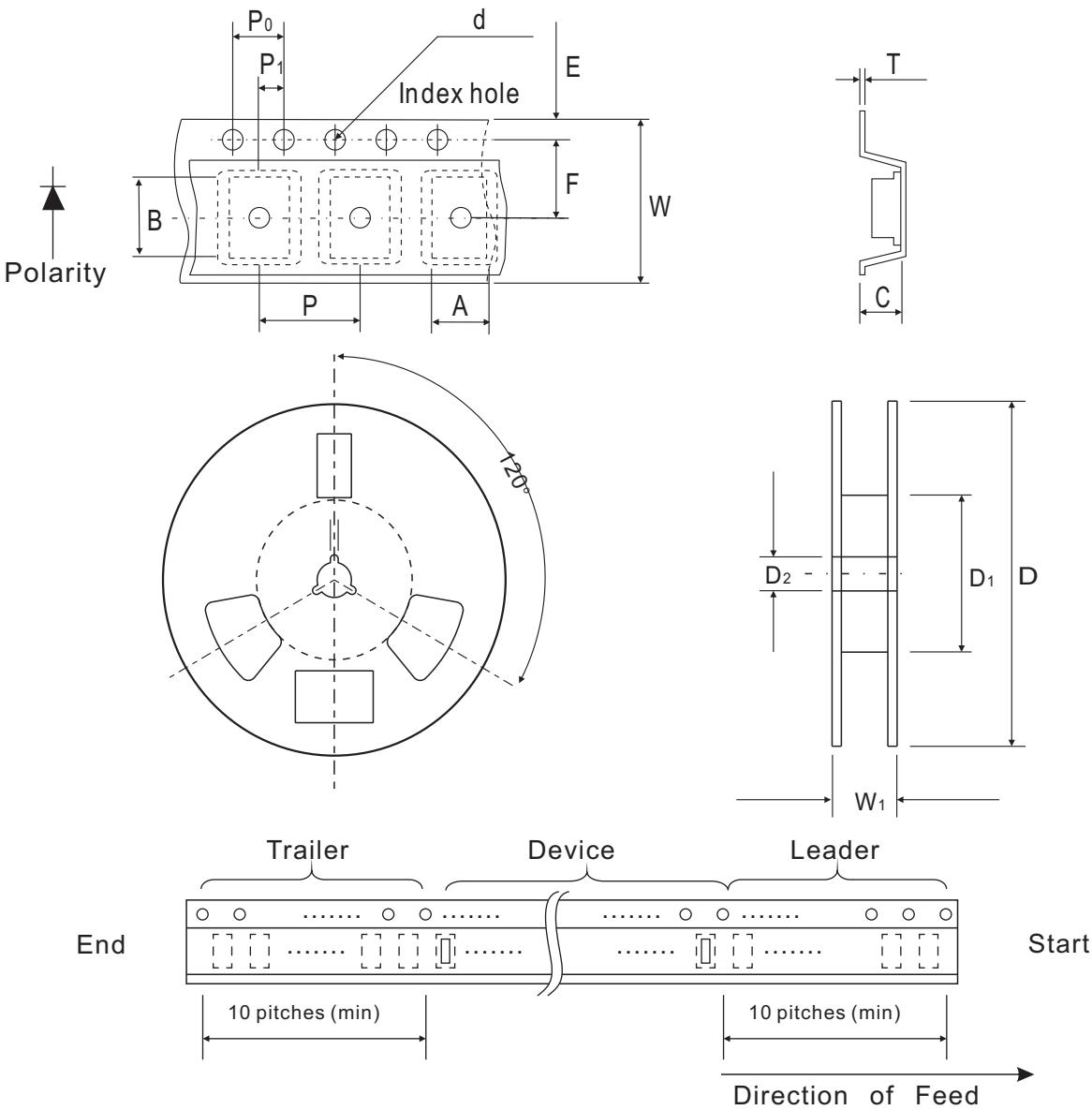


Fig.4 - Current derating curve



Reel Taping Specification



1005 (SOD-323F)	SYMBOL	A	B	C	d	D	D ₁	D ₂
	(mm)	1.55 ± 0.10	2.65 ± 0.10	1.05 ± 0.10	1.55 ± 0.05	178 ± 1	60.0 MIN.	13.0 ± 0.20
	(inch)	0.061 ± 0.004	0.104 ± 0.004	0.041 ± 0.004	0.061 ± 0.002	7.008 ± 0.04	2.362 MIN.	0.512 ± 0.008

1005 (SOD-323F)	SYMBOL	E	F	P	P ₀	P ₁	T	W	W ₁
	(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 ± 0.20	13.5 MAX.
	(inch)	0.069 ± 0.004	0.138 ± 0.002	0.157 ± 0.004	0.157 ± 0.004	0.079 ± 0.004	0.009 ± 0.002	0.315 ± 0.008	0.531 MAX.

Marking Code

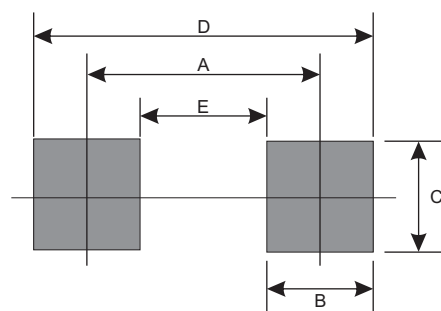
Park Number	Marking Code
CDBF0320-HF	BH
CDBF0330-HF	BJ
CDBF0340-HF	BK



xx = Product type marking code

Suggested PAD Layout

SIZE	1005/SOD-323F	
	(mm)	(inch)
A	2.10	0.083
B	1.20	0.047
C	1.20	0.047
D	3.30	0.130
E	0.90	0.035



Standard Package

Case Type	Qty per Reel	Reel Size
	(Pcs)	(inch)
1005/SOD-323F	4000	7