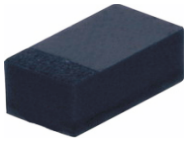
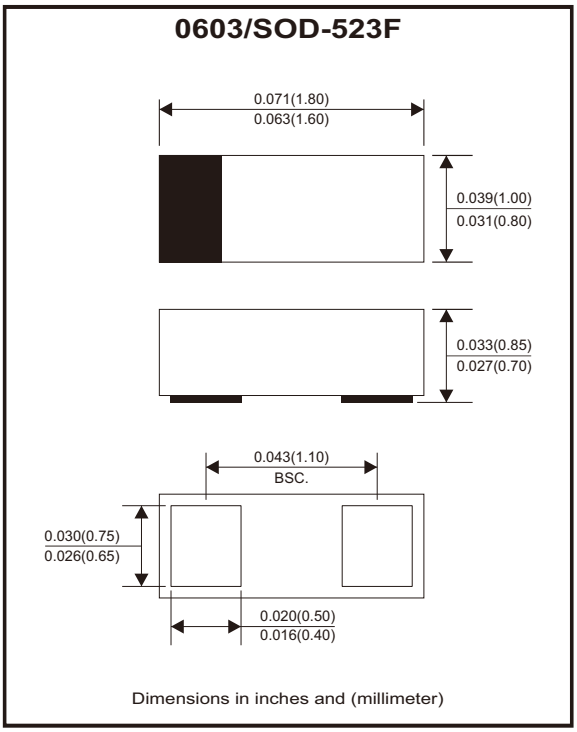
SMD Schottky Barrier Diode

CDBUR0320/0340-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: 0603/SOD-523F standard package, molded plastic.
- Terminals: Gold plated, solderable per MIL-STD-750,method 2026
- Polarity: Indicated by cathode band.
- Mounting position: Any
- Weight: 0.003 grams(approx.).

Circuit Diagram



Maximum Rating (at T_A=25°C unless otherwise noted)

Parameter	Symbol	CDBUR0320-HF	CDBUR0340-HF	Unit
Repetitive peak reverse voltage	V_{RRM}	20	40	V
Reverse voltage	V_R	20	40	V
RMS reverse voltage	$V_{R(MS)}$	14	28	V
Average forward rectified current	I_O	350		mA
Peak forward surge current 8.3 ms single half sine-wave	I_{FSM}	1.5		A
Power dissipation	P_D	150		mA
Thermal resistance junction to ambient air	$R_{\theta JA}$	667		°C/W
Junction temperature	T_j	+125		°C
Storage temperature range	T_{STG}	-65 to +125		°C

Electrical Characteristics (at T_A=25°C unless otherwise noted)

Parameter		Conditions	Symbol	Min	Typ	Max	Unit
Reverse current	CDBUR0320-HF CDBUR0340-HF	V_R = 10V V_R = 30V	I_R			5 5	μA
Forward voltage		I_F = 20mA I_F = 200mA	V_F			0.37 0.60	V
Capacitance between terminals		f = 1 MHz, and 0V DC reverse voltage	C_T		50		pF
Reverse recovery time		I_F = I_R, I_{rr} = 0.1XI_R, R_L = 100 ohm	T_{rr}		6.4		nS

Rating and Characteristic Curves (CDBUR0320/0340-HF)

Fig.1 - Forward Characteristics

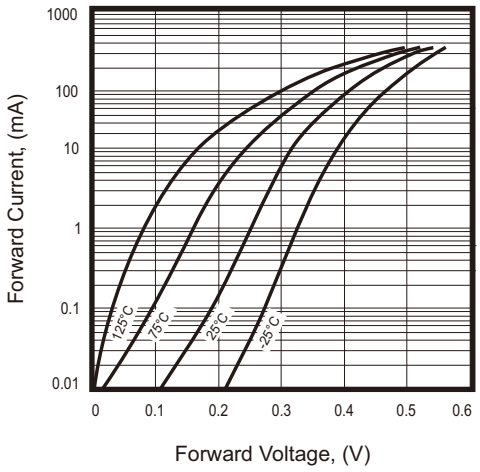


Fig.2 - Reverse Characteristics

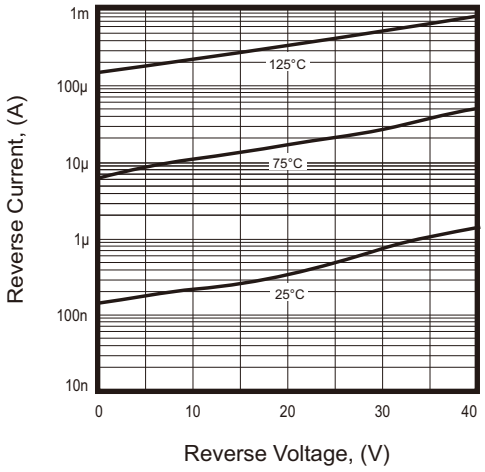


Fig.3 - Capacitance Between Terminals Characteristics

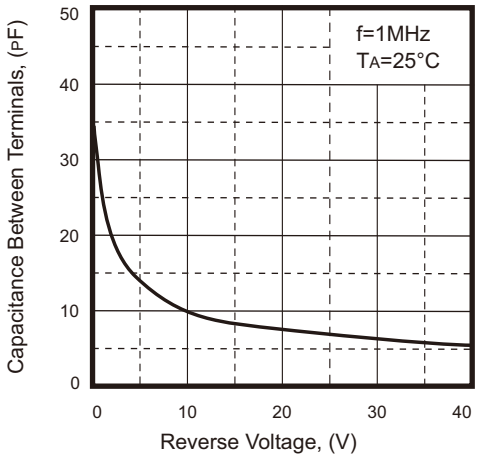
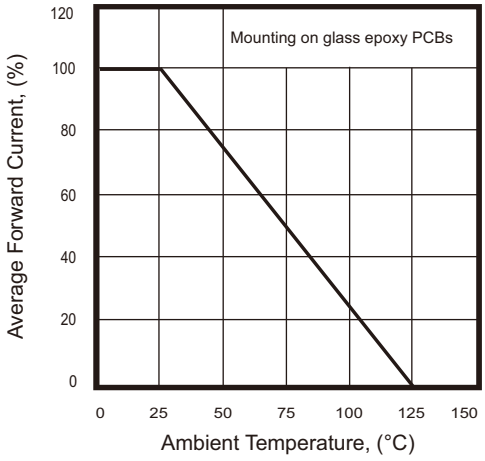
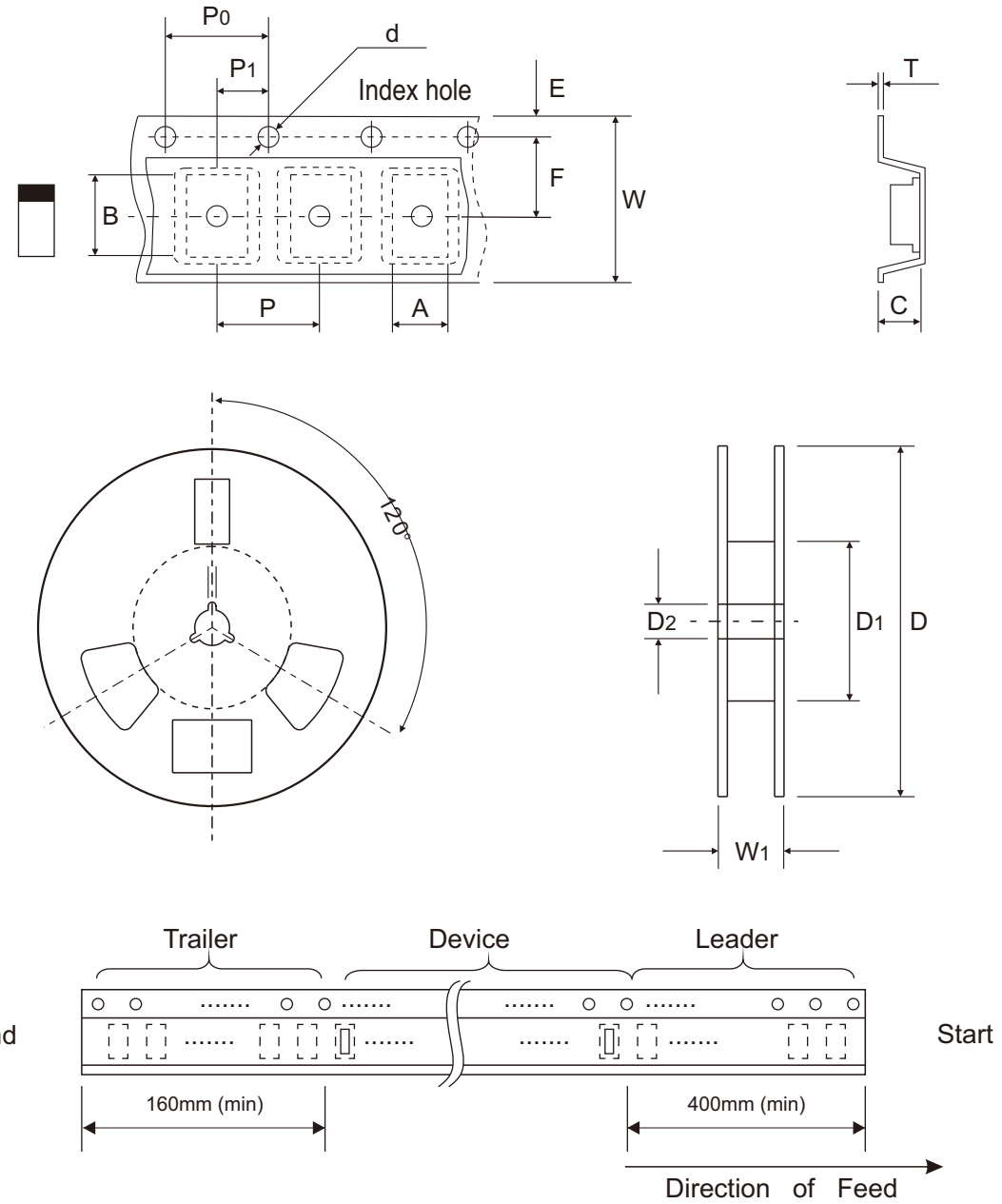


Fig.4 - Current Derating Curve



Reel Taping Specification



	SYMBOL	A	B	C	d	D	D1	D2
0603 (SOD-523F)	(mm)	1.16 ± 0.10	1.90 ± 0.10	0.95 ± 0.10	1.50 + 0.10 − 0.00	178.00 ± 1.00	60.00 ± 0.50	13.50 ± 0.20
	(inch)	0.046 ± 0.004	0.075 ± 0.004	0.037 ± 0.004	0.059 + 0.004 − 0.000	7.008 ± 0.039	2.362 ± 0.020	0.531 ± 0.008

	SYMBOL	E	F	P	P0	P1	T	W	W1
0603 (SOD-523F)	(mm)	1.75 ± 0.10	3.50 ± 0.05	4.00 ± 0.10	4.00 ± 0.10	2.00 ± 0.05	0.22 ± 0.03	8.00 ± 0.20	12.00 + 0.50 − 0.00
	(inch)	0.069 ± 0.004	0.138 ± 0.002	0.157 ± 0.004	0.157 ± 0.004	0.079 ± 0.002	0.009 ± 0.001	0.315 ± 0.008	0.472 + 0.020 − 0.000

Marking Code

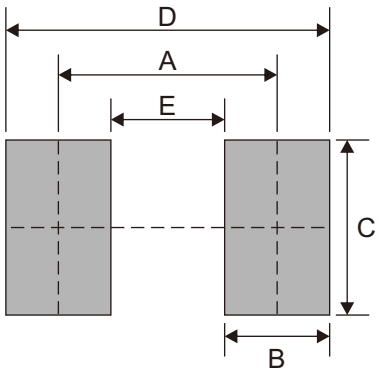
Part Number	Marking Code
CDBUR0320-HF	BH
CDBUR0340-HF	BK



xx = Product type marking code

Suggested P.C.B. PAD Layout

SIZE	0603/SOD-523F	
	(mm)	(inch)
A	1.25	0.049
B	0.60	0.024
C	1.00	0.039
D	1.85	0.073
E	0.65	0.026



Standard Package

Case Type	REEL PACK	
	REEL (pcs)	Reel Size (inch)
0603/SOD-523F	4,000	7