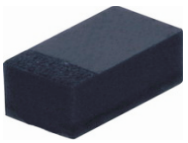
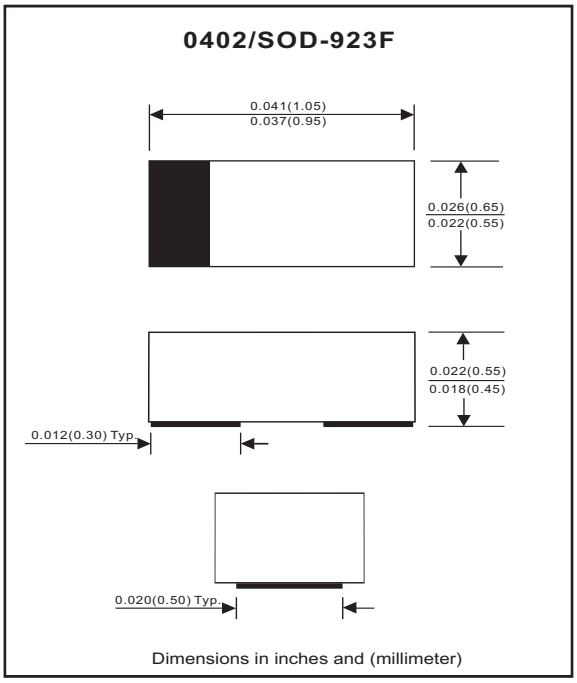
SMD Schottky Barrier Diode

CDBQR42/43-HF

Io = 200 mA
VR = 30 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: 0402/SOD-923F standard package, molded plastic.
-Terminals: Gold plated, solderable per MIL-STD-750,method 2026.
-Marking code:
CDBQR42-HF : BD
CDBQR43-HF : BE
-Mounting position: Any
-Weight: 0.001 gram(approx.).

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

Parameter	Conditions	Symbol	Min	Typ	Max	Unit
Peak reverse voltage		V_{RM}			30	V
Reverse voltage		V_R			30	V
RMS reverse voltage		$V_{R(RMS)}$			21	V
Average forward rectified current		I_O			200	mA
Repetitive peak forward current		I_{FRM}			0.5	A
Forward current,surge peak	8.3 ms single half sine-wave superimposed on rate load(JEDEC method)	I_{FSM}			4	A
Power dissipation		P_D			125	mW
Thermal resistance junction to ambient air		$R_{\theta JA}$			667	°C/W
Storage temperature		T_{STG}	-55		+125	°C
Junction temperature		T_j			+125	°C

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

Parameter	Conditions	Symbol	Min	Typ	Max	Unit
Forward voltage CDBQR42/43-HF CDBQR42-HF CDBQR42-HF CDBQR43-HF CDBQR43-HF	I_F = 200mA I_F = 10mA I_F = 50mA I_F = 2mA I_F = 15mA	V_F			1 0.4 0.65 0.33 0.45	V
Reverse current	V_R = 25V	I_R			0.5	uA
Capacitance between terminals	f = 1 MHz, and 1 VDC reverse voltage	C_T			10	pF
Reverse recovery time	I_F=I_R=10mA,Irr=0.1xIR,RL=100 ohm	T_{rr}			5	nS

RATING AND CHARACTERISTIC CURVES (CDBQR42/43-HF)

Fig. 1 - Forward characteristics

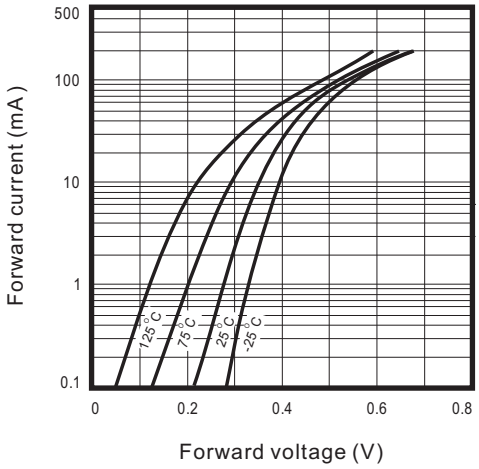


Fig. 2 - Reverse characteristics

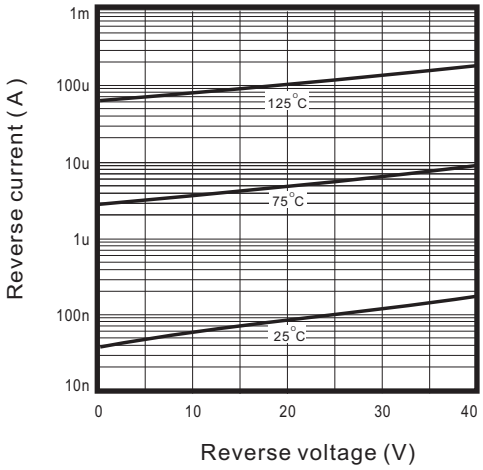


Fig.3 - Capacitance between terminals characteristics

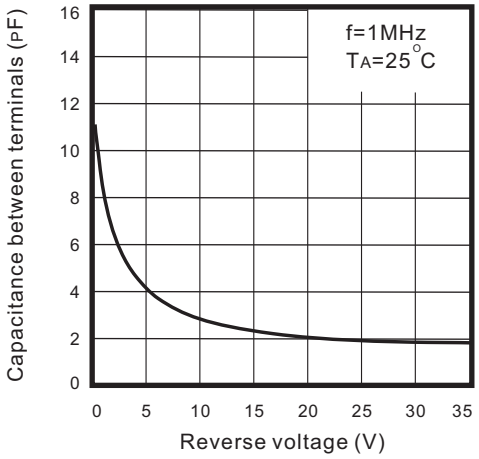
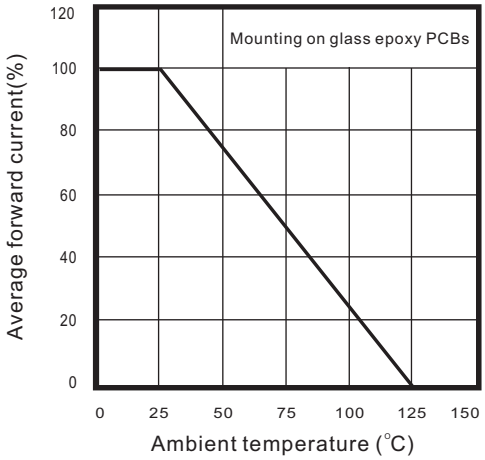
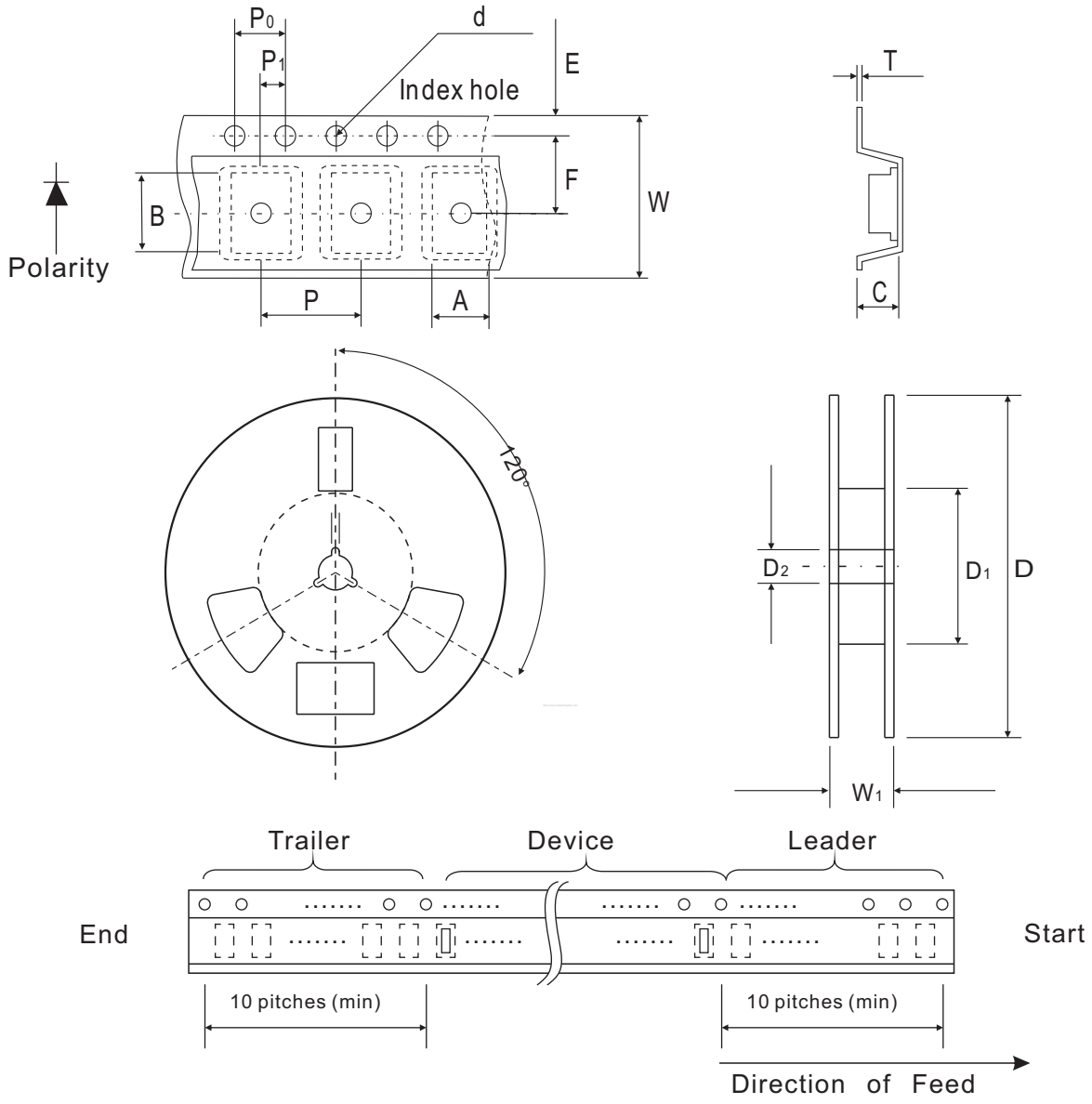


Fig.4 - Current derating curve



Reel Taping Specification



	SYMBOL	A	B	C	d	D	D_1	D_2
0402 (SOD-923F)	(mm)	0.75 ± 0.10	1.15 ± 0.10	0.60 ± 0.10	1.55 + 0.10	178 ± 1	60.0 MIN.	13.0 ± 0.20
	(inch)	0.026 ± 0.004	0.045 ± 0.004	0.024 ± 0.004	0.061 + 0.004	7.008 ± 0.04	2.362 MIN.	0.512 ± 0.008

	SYMBOL	E	F	P	P_0	P_1	T	W	W_1
0402 (SOD-923F)	(mm)	1.75 ± 0.10	3.50 ± 0.05	4.00 ± 0.10	4.00 ± 0.10	2.00 ± 0.10	0.22 ± 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.

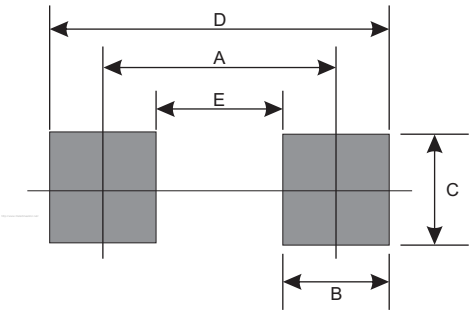
Marking Code

Park Number	Marking Code
CDBQR42-HF	BD
CDBQR43-HF	BE

xx = Product type marking code

Suggested PAD Layout

SIZE	0402/SOD-923F	
	(mm)	(inch)
A	0.750	0.030
B	0.500	0.020
C	0.700	0.028
D	1.250	0.049
E	0.250	0.010



Standard Package

Case Type	Qty per Reel	Reel Size
	(Pcs)	(inch)
0402/SOD-923F	5000	7