

SMD Schottky Barrier Diode

CDBQR54-HF

I_o = 200 mA
V_R = 30 Volts
RoHS Device
Halogen Free

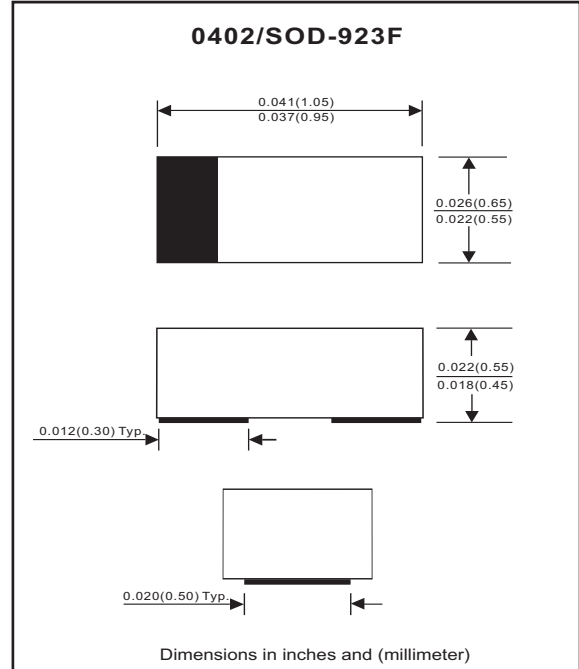


Features

- 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: Cathode band & BF
- Mounting position: Any
- Weight: 0.001 gram(approx.).



Maximum Rating (at TA=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}			0.3	A
Forward current,surge peak	8.3 ms single half sine-wave superimposed on rate load(JEDEC method)	I _{FSM}			0.6	A
Power dissipation		P _D			125	mW
Storage temperature		T _{STG}	-65		+125	°C
Junction temperature		T _j			+125	°C

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

Parameter	Conditions	Symbol	Min	Typ	Max	Unit
Forward voltage	I _F = 0.1mA I _F = 1mA I _F = 10mA I _F = 30mA I _F = 100mA	V _F			0.24 0.32 0.4 0.5 1	V
Reverse current	V _R = 25V	I _R			2	uA
Capacitance between terminals	f = 1 MHz, and 1 VDC reverse voltage	C _T			10	pF
Reverse recovery time	I _F =I _R =10mA,I _{rr} =0.1xI _R ,R _L =100 Ohm	T _{rr}			5	nS

RATING AND CHARACTERISTIC CURVES (CDBQR54-HF)

Fig. 1 - Forward characteristics

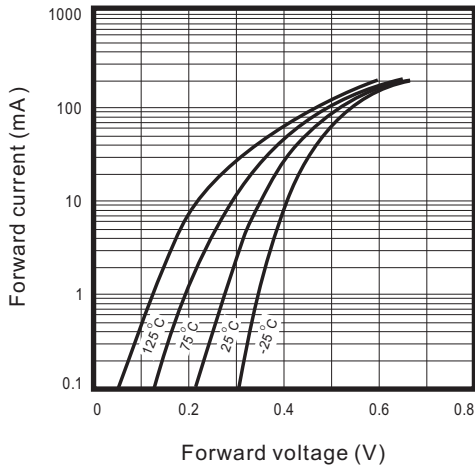


Fig. 2 - Reverse characteristics

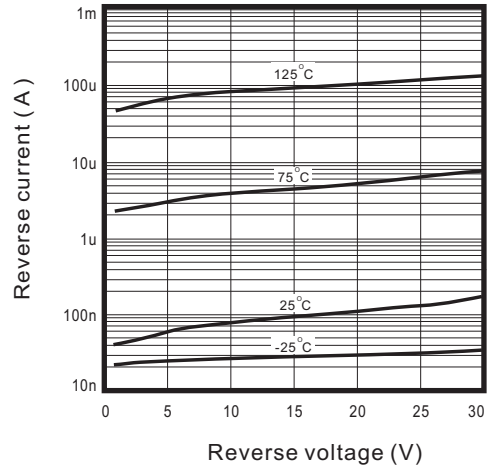


Fig.3 - Capacitance between terminals characteristics

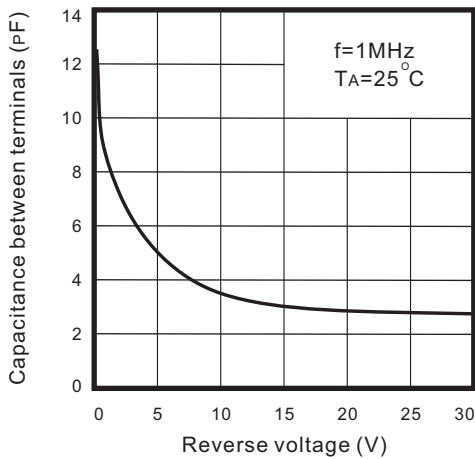
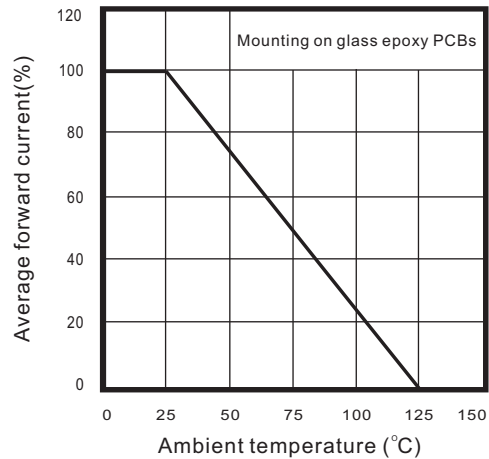
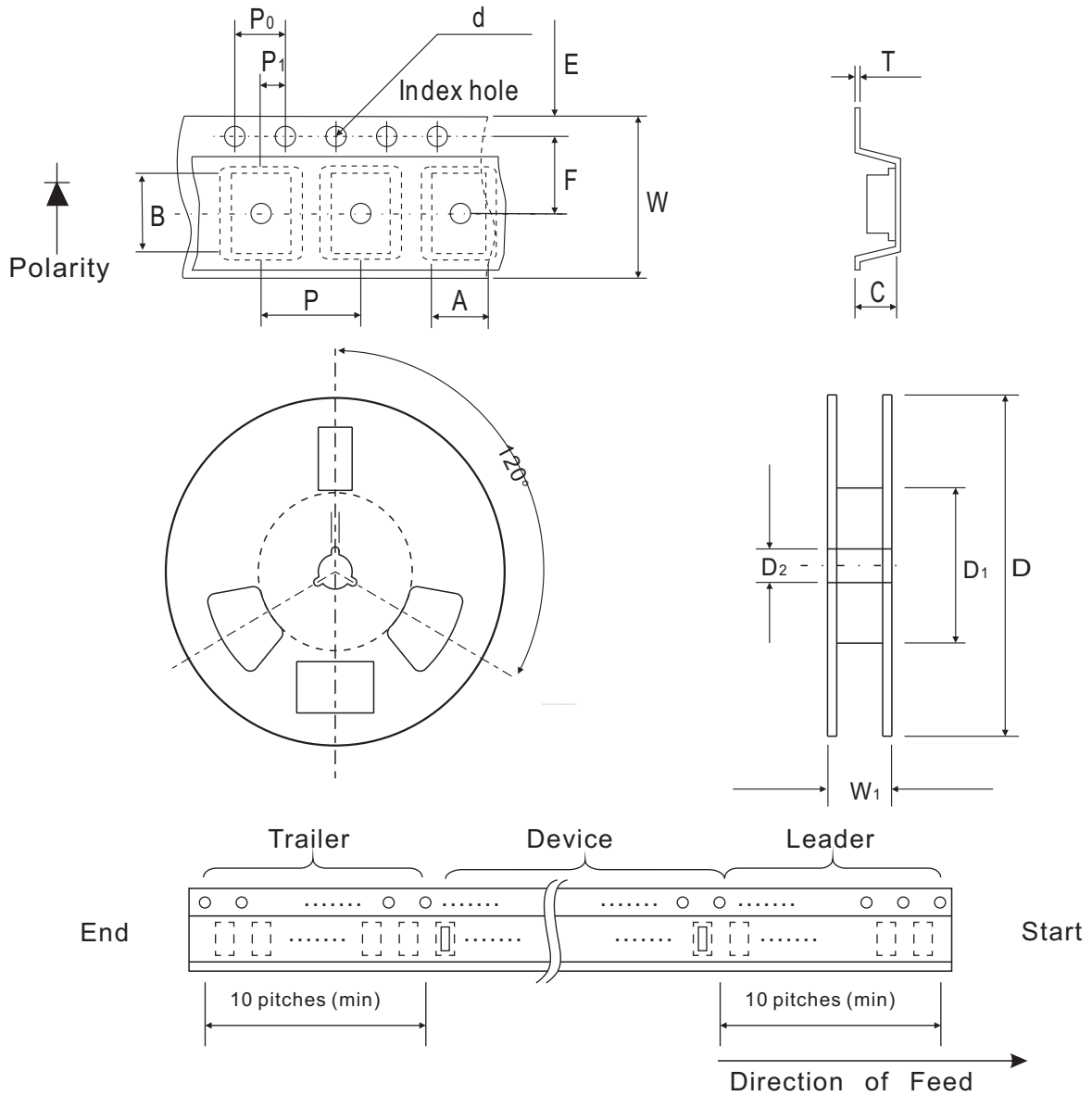


Fig.4 - Current derating curve



Reel Taping Specification



0402 (SOD-923F)	SYMBOL	A	B	C	d	D	D ₁	D ₂
	(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

0402 (SOD-923F)	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 ± 0.10	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.

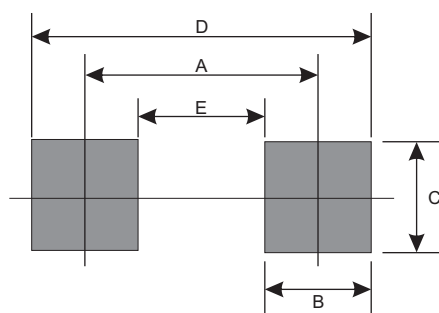
Marking Code

Park Number	Marking Code
CDBQR54-HF	BF



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