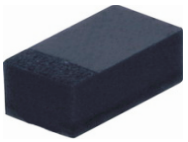
SMD Switching Diode

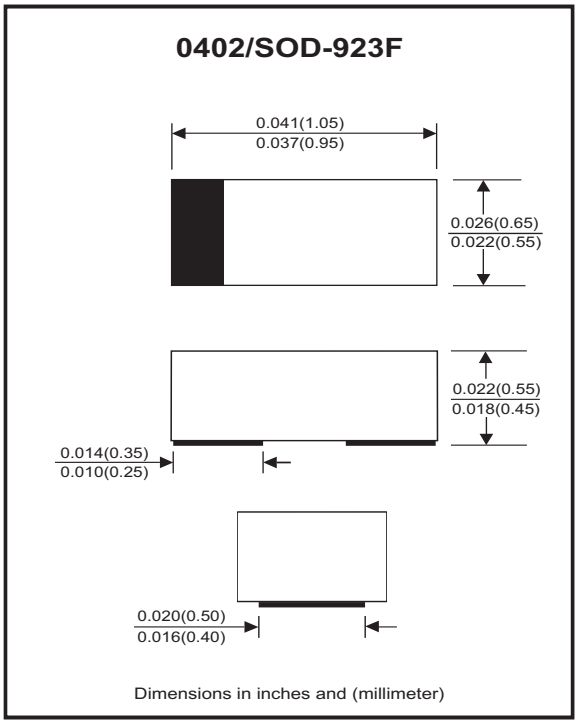
CDSQR400B-HF

RoHS Device
Halogen Free



Features

- High Speed.
- Designed for mounting on small surface.
- Extremely thin/leadless package.
- Low leakage current.
- High mounting capability, strong surge withstand, high reliability.



Mechanical data

- Case: 0402/SOD-923F standard package, molded plastic.
- Terminals: Gold plated, Solderable per MIL-STD-750,method 2026.
- Polarity: Indicated by cathode band.
- Mounting position: Any.
- Weight: 0.001 grams(approx.).

Circuit diagram

Maximum Rating (at T_A=25 ºC unless otherwise noted)

Parameter	Conditions	Symbol	Min	Typ	Max	Unit
Repetitive peak reverse voltage		V_{RRM}			90	V
Reverse voltage		V_R			80	V
Average forward current		I_O			100	mA
Forward current, surge peak	8.3 ms single half sine-wave superimposed on rate load (JEDEC method)	I_{FSM}		1000		mA
Power dissipation		P_D			125	mW
Operating temperature range		T_j	-40		+125	℃
Storage temperature range		T_{STG}	-55		+125	℃

Electrical Characteristics (at T_A=25 ºC unless otherwise noted)

Parameter	Conditions	Symbol	Min	Typ	Max	Unit
Forward voltage	I_F = 100 mA DC	V_F			1.0	V
Reverse current	V_R = 80V	I_R			0.1	uA
Capacitance between terminals	f = 1MHz, and 0.5V DC reverse voltage	C_T			3	pF
Reverse recovery time	V_R = 6V, I_F = 10mA, R_L = 50 ohms	T_{rr}			4	nS

RATING AND CHARACTERISTIC CURVES (CDSQR400B-HF)

Fig.1 - Forward Characteristics

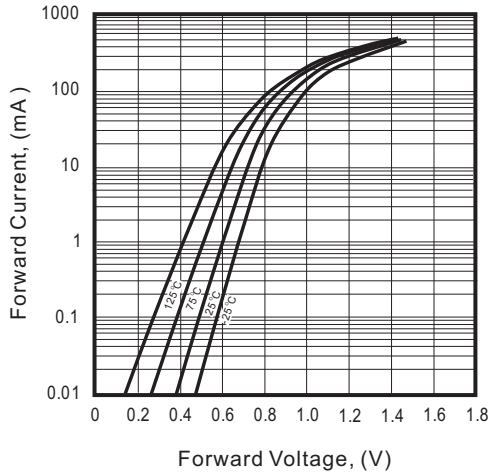


Fig.2 - Reverse Characteristics

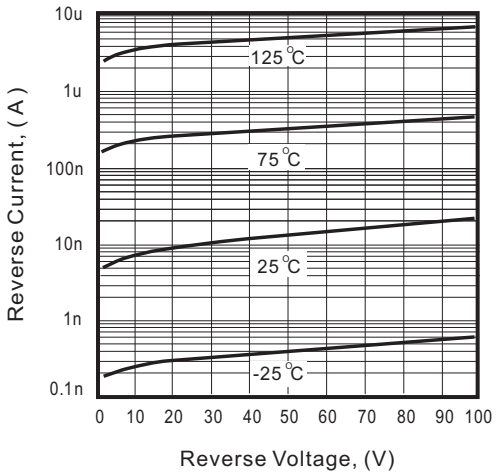


Fig.3 - Capacitance Between Terminals Characteristics

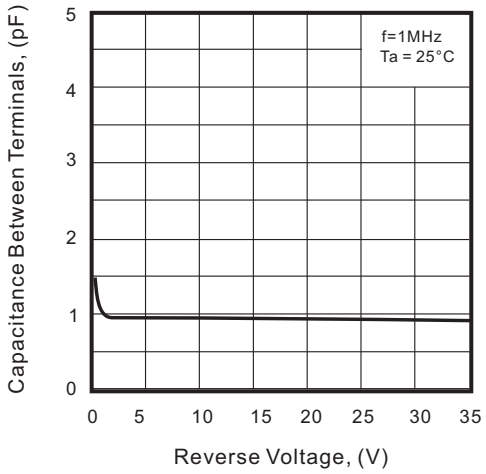
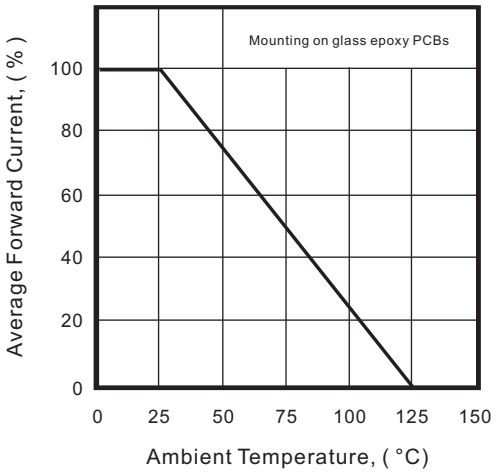
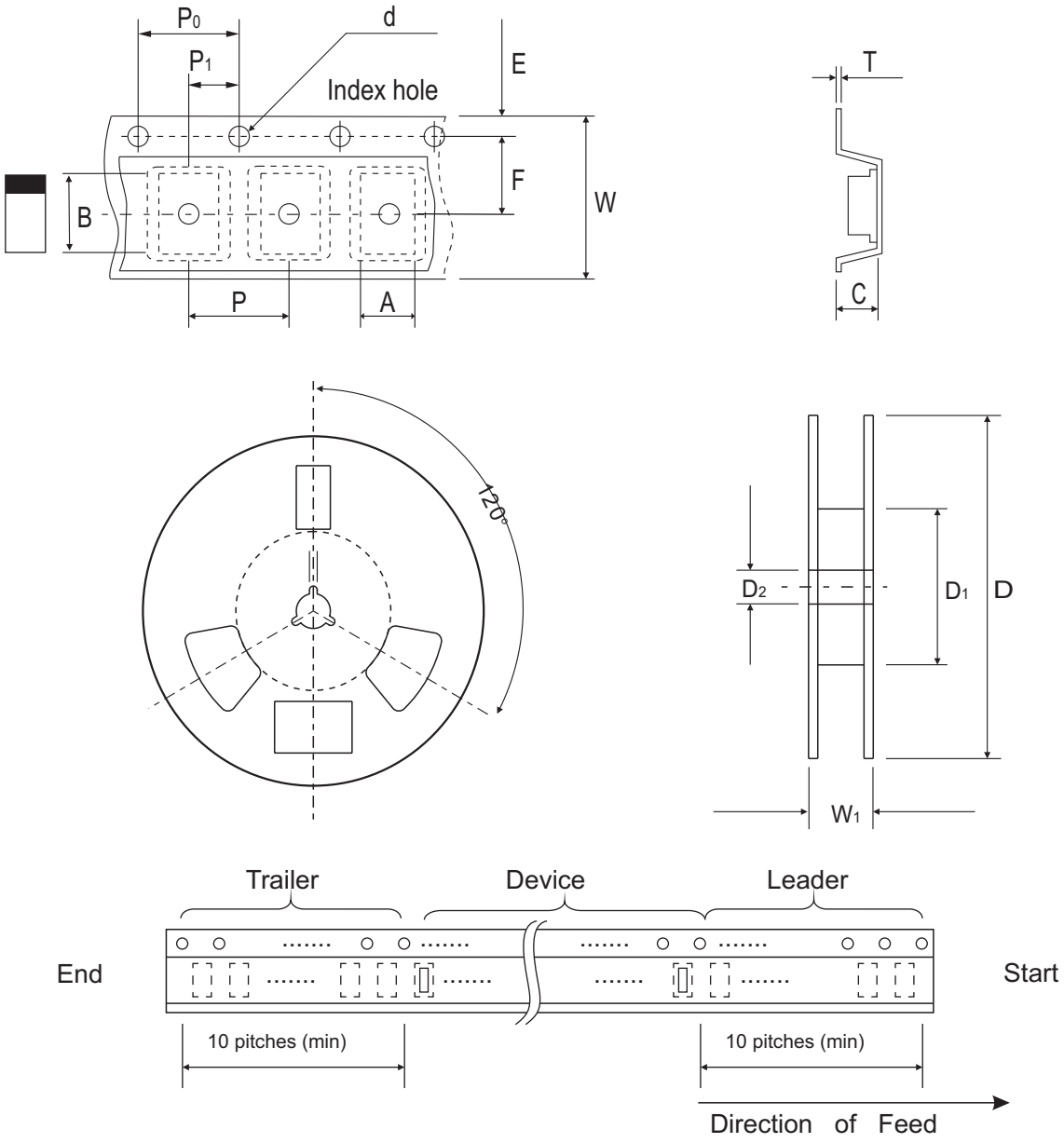


Fig.4 - Current Derating Curve



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)	0.030 ± 0.004	0.045 ± 0.004	0.024 ± 0.004	0.061 + 0.004	7.008 ± 0.040	2.362 MIN.	0.512 ± 0.008

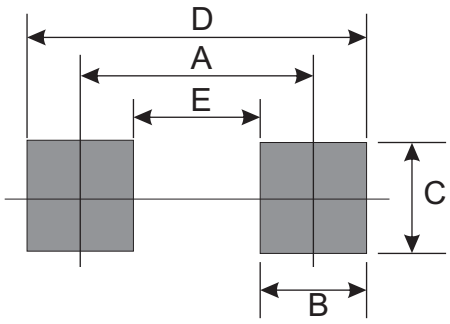
	SYMBOL	E	F	P	P_0	P_1	T	W	W_1
0402 (SOD-923F)	(mm)	1.75 ± 0.10	3.50 ± 0.05	4.00 ± 0.10	4.00 ± 0.10	2.00 ± 0.10	0.22 ± 0.05	8.00 ± 0.20	13.5 MAX.
	(inch)	0.069 ± 0.004	0.138 ± 0.002	0.157 ± 0.004	0.157 ± 0.004	0.079 ± 0.004	0.009 ± 0.002	0.315 ± 0.008	0.531 MAX.

Marking Code

Part Number	Marking Code
CDSQR400B-HF	S4

Suggested PAD Layout

SIZE	0402/SOD-923F	
	(mm)	(inch)
A	0.75	0.030
B	0.50	0.020
C	0.70	0.028
D	1.25	0.049
E	0.25	0.010



Standard Packaging

Case Type	Qty Per Reel	Reel Size
	(Pcs)	(inch)
0402/SOD-923F	5,000	7