

CDSQR4448-HF

RoHS Device
Halogen Free



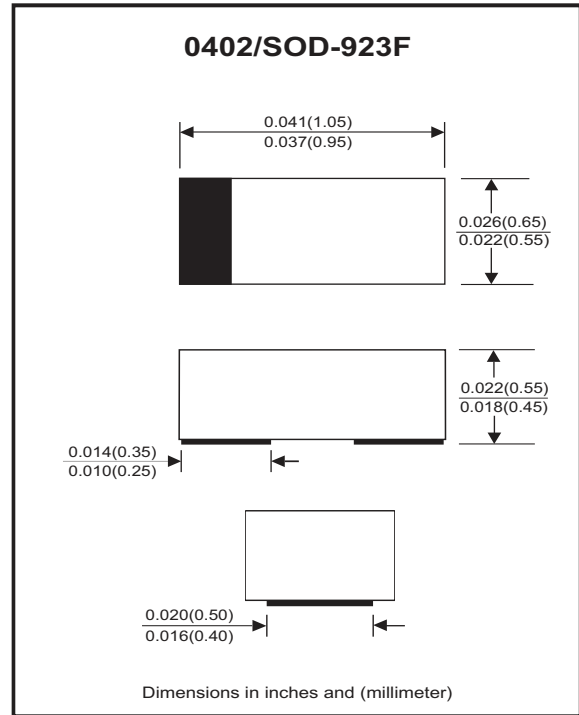
Features

- High Speed.
- Fast Switching Speed.
- Designed for mounting on small surface.
- Extremely thin/leadless package.

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 $T_A=25^\circ\text{C}$ unless otherwise noted)

Parameter	Conditions	Symbol	Min	Typ	Max	Unit
Repetitive peak reverse voltage		V_{RRM}			100	V
Reverse voltage		V_R			80	V
Average forward current		I_o			125	mA
Forward current, surge peak	$T_p=1\mu\text{S}$ $T_p=8.3\text{mS}$	I_{FSM}			2 1	A
Power dissipation		P_D			125	mW
Operating temperature range		T_j	-40		+125	$^\circ\text{C}$
Storage temperature range		T_{STG}	-40		+125	$^\circ\text{C}$

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

Parameter	Conditions	Symbol	Min	Typ	Max	Unit
Forward voltage	$I_F = 5\text{ mA}$ $I_F = 100\text{ mA}$	V_F	0.62		0.72 1	V
Reverse current	$V_R = 20\text{ V}$ $V_R = 80\text{ V}$	I_R			25 100	nA
Capacitance between terminals	$f = 1\text{ MHz}$, and 0.5 VDC reverse voltage	C_T			9	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}			9	nS

RATING AND CHARACTERISTIC CURVES (CDSQR4448-HF)

Fig.1 - Forward Characteristics

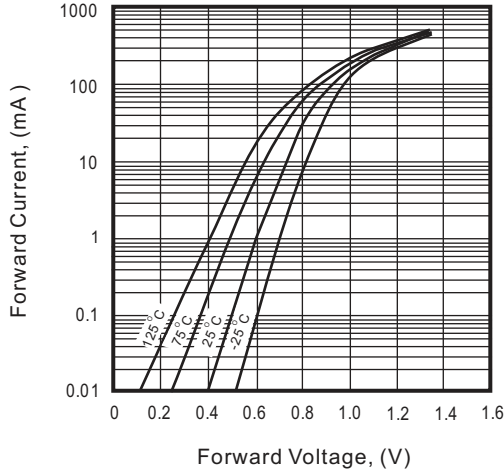


Fig.2 - Reverse Characteristics

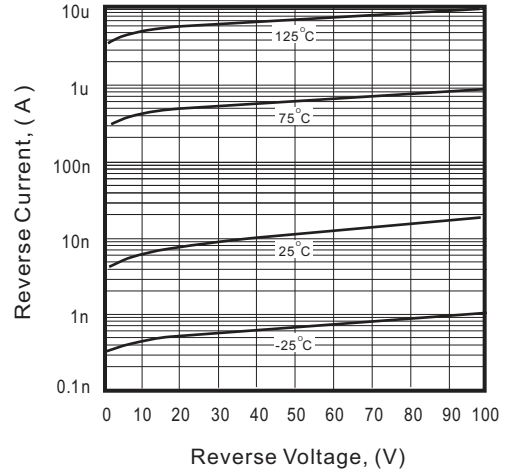


Fig.3 - Capacitance Between Terminals Characteristics

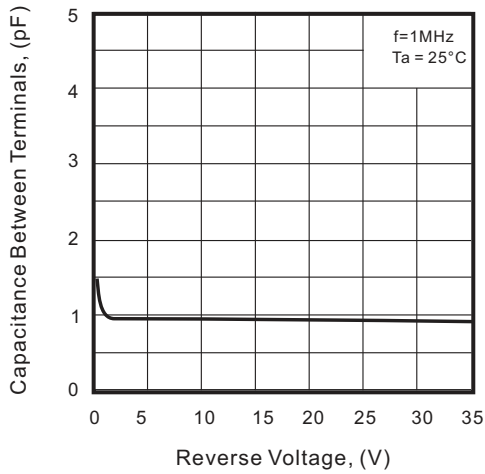
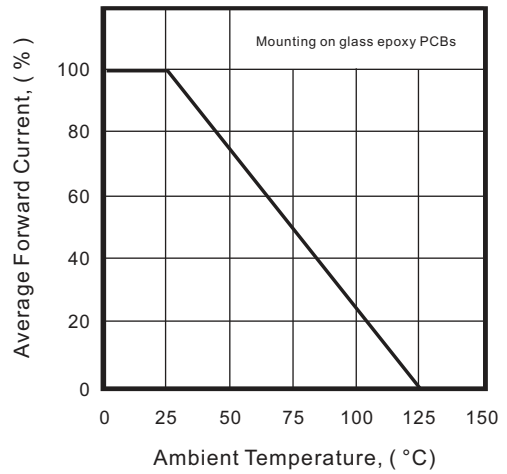
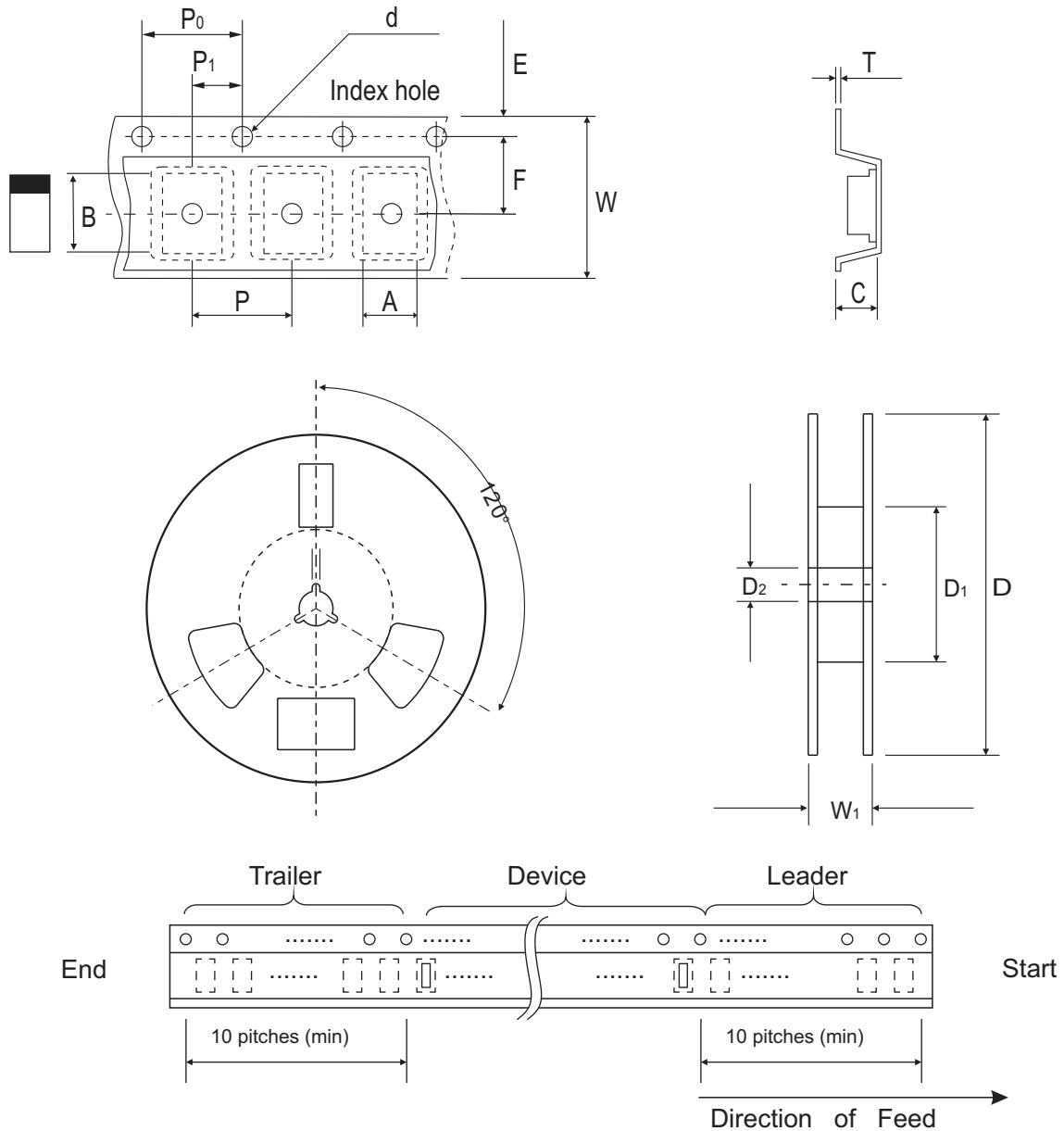


Fig.4 - Current Derating Curve



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)	0.030 ± 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

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.

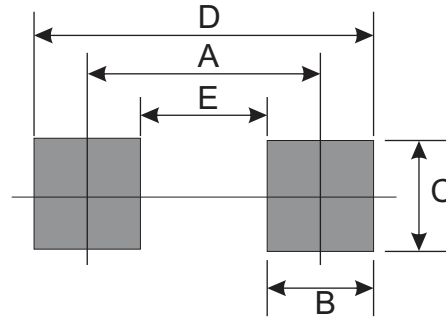
Marking Code

Part Number	Marking Code
CDSQR4448-HF	S5



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