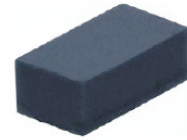


CPDQR3V3R-HF

RoHS Device
Halogen Free

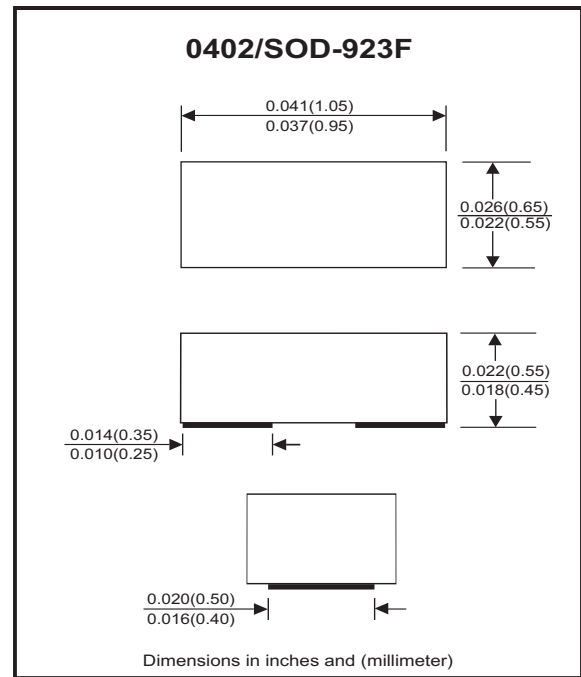


Features

- Bi-directional ESD protection.
- Surface mount package.
- Ultra small SMD package:0402.
- High component density.

Mechanical data

- Case: 0402/SOD-923 standard package, molded plastic.
- Terminals: Gold plated, solderable per MIL-STD-750,method 2026.
- Marking Code: E3
- Mounting position: Any.
- Weight: 0.001 grams(approx.).



Circuit Diagram



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

Parameter	Conditions	Symbol	Min	Typ	Max	Unit
Reverse stand-off voltage		V _{RWM}			3.3	V
Diode breakdown voltage	I _R = 1mA	V _{BD}	5.0			V
Leakage current	V _R = 3.3V	I _R			1	μA
Junction capacitance	V _R = 0V, f = 1MHz	C _T		18		pF
Clamping voltage	I _{PP} =1A , tp=8/20us	V _C			15.5	V
	I _{PP} =2A , tp=8/20us	V _C			18	V
Peak pulse power	tp= 8/20	P _{PK}			36	W
ESD capability	IEC 61000-4-2(air)	ESD			15	kV
	IEC 61000-4-2(contact)	ESD			8	kV
Operation temperature range		T _j	-55		150	°C
Storage temperature range		T _{STG}	-55		150	°C

RATING AND CHARACTERISTIC CURVES (CPDQR3V3R-HF)

Fig.1 - 8/20us Peak Pulse Current
Wave Form Acc. IEC 61000-4-5

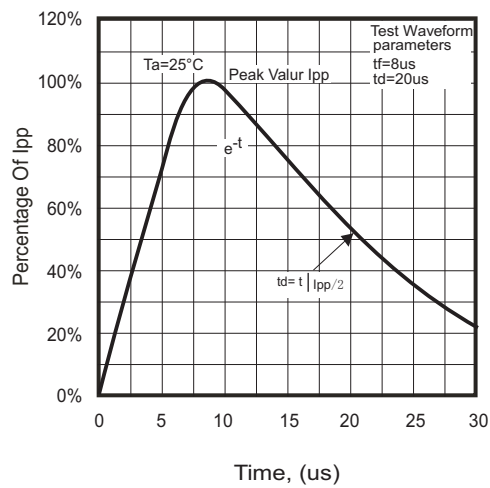


Fig.2 - Capacitance Between
Terminals Characteristics

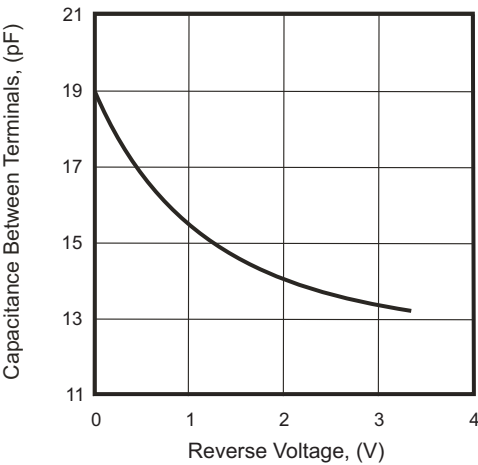


Fig.3 - Clamping Voltage Vs.
Peak Pulse Current

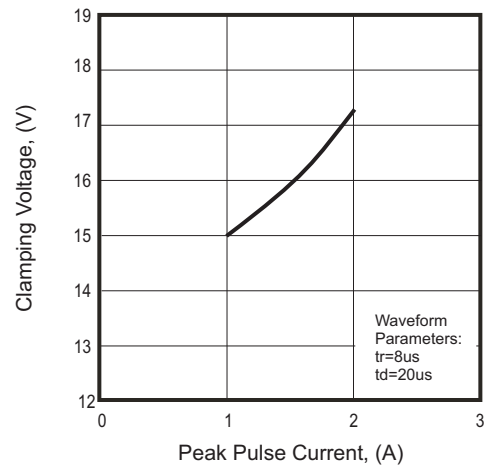
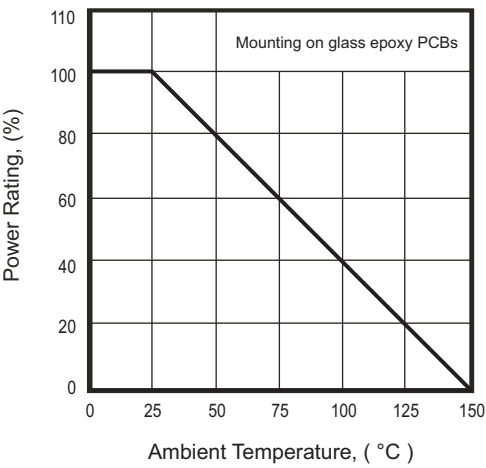
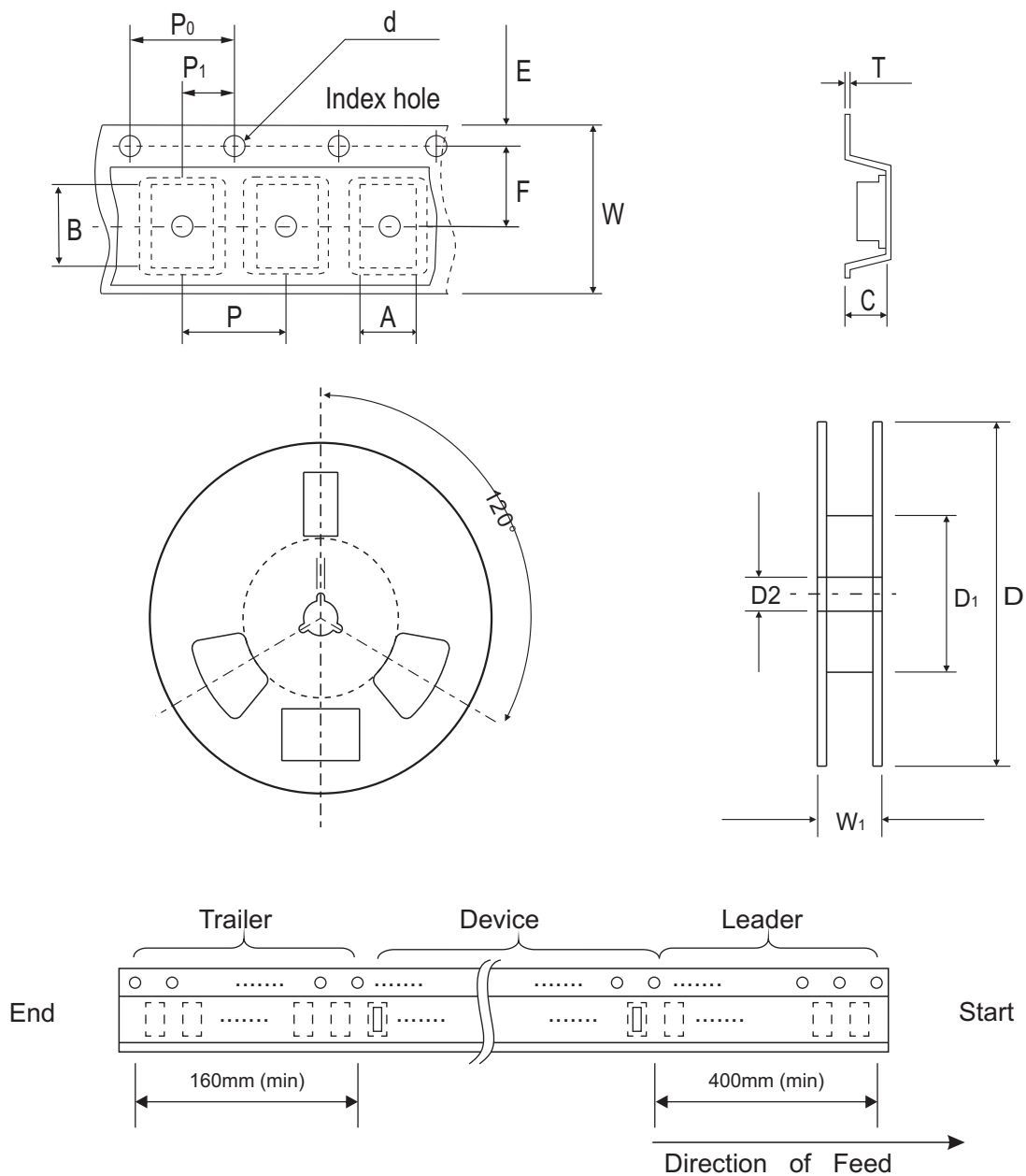


Fig.4 - Power Rating Derating Curve



Reel Taping Specification



0402 (SOD-923F)	SYMBOL	A	B	C	d	D	D ₁	D ₂
	(mm)	0.75 ± 0.05	1.17 ± 0.05	0.65 ± 0.05	$1.50 + 0.10 - 0$	178.00 ± 1.00	60.00 ± 0.50	13.50 ± 0.20
	(inch)	0.030 ± 0.002	0.046 ± 0.002	0.026 ± 0.002	$0.059 + 0.004 - 0$	7.008 ± 0.039	2.362 ± 0.020	0.531 ± 0.008

0402 (SOD-923F)	SYMBOL	E	F	P	P ₀	P ₁	T	W	W ₁
	(mm)	1.75 ± 0.10	3.50 ± 0.10	4.00 ± 0.10	4.00 ± 0.10	2.00 ± 0.10	$0.20 + 0.02 - 0.05$	8.00 ± 0.20	$12.00 + 0.50 - 0$
	(inch)	0.069 ± 0.004	0.138 ± 0.004	0.157 ± 0.004	0.157 ± 0.004	0.079 ± 0.004	$0.008 + 0.001 - 0.002$	0.315 ± 0.008	$0.472 + 0.020 - 0$

Marking Code

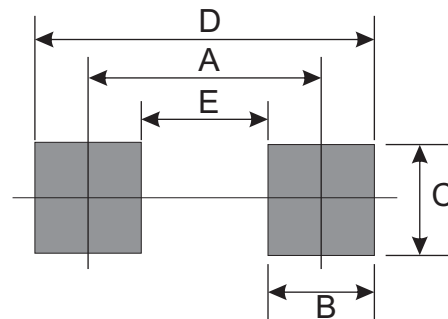
Part Number	Marking Code
CPDQR3V3R-HF	E3



Product type marking code

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