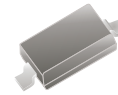


ACPDV3V3-HF Thru. ACPDV36V-HF

RoHS Device
Halogen Free

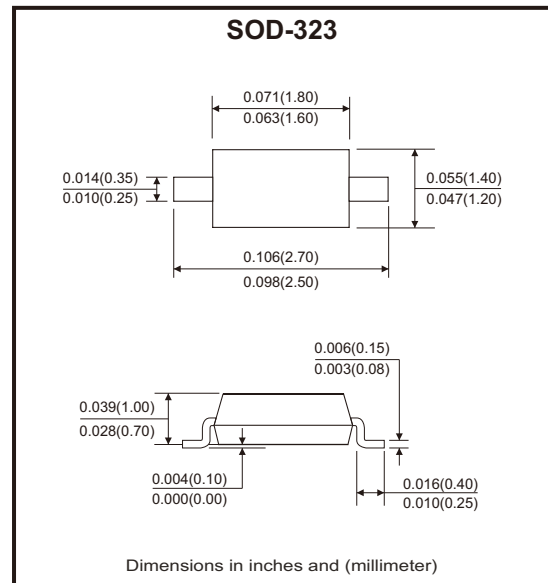


Features

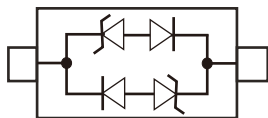
- IEC61000-4-2 (ESD) ± 30 kV (air/contact).
- IEC61000-4-4 (EFT) 40A (5/50ns).
- Protects one power or I/O port.
- Low clamping voltage.
- Working voltages: 3.3V~36V.
- Response time is < 1 ns.
- AEC-Q101 Qualified.

Mechanical data

- Case: SOD-323, molded plastic.
- Terminals: Solderable per MIL-STD-750, method 2026.
- Mounting position: Any.



Circuit Diagram



Maximum Rating (at $T_a=25^\circ\text{C}$ unless otherwise noted)

Parameter	Conditions	Symbol	Value	Unit
Peak pulse power	$T_P = 8/20\mu\text{s}$	P_{PP}	See next table	W
Peak pulse current	$T_P = 8/20\mu\text{s}$	I_{PP}	See next table	A
ESD rating per	IEC 61000-4-2 (air) IEC 61000-4-2 (contact)	ESD	± 30	kV
Lead soldering temperature	10 second duration	T_L	260	$^\circ\text{C}$
Operating junction temperature range		T_J	-55 to +150	$^\circ\text{C}$
Storage temperature range		T_{STG}	-55 to +150	$^\circ\text{C}$

Note: Non-repetitive current pulse, per Figure 1.

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

Part No.	V _{RWM}	I _R @V _{RWM}	V _{BR} @1mA (V)	V _C @1A (V)		Max. V _C @I _{PP} 8/20μs		Capacitance @ V _R =0V, f=1MHz (pF)		Peak pulse current
	(V)	(μA)	Min	Typ	Max	V _C (V)	I _{PP} (A)	Typ	Max	P _{PP} (W)
ACPDV3V3-HF	3.3	5	4	7.5	9.5	20	20	0.8	1.5	400
ACPDV5V0-HF	5	1	6	9.8	12	15	17	0.8	1.5	255
ACPDV8V0-HF	8	1	8.5	13.6	17	21	15	0.8	1.5	315
ACPDV12V-HF	12	1	13.3	17.8	22.5	30	11	0.8	1.5	330
ACPDV15V-HF	15	1	16.7	23.5	30	40	10	0.8	1.5	400
ACPDV24V-HF	24	1	26.7	38	48	50	6	0.8	1.5	300
ACPDV36V-HF	36	1	36.5	50	63	66	2	0.8	1.5	132

Typical Rating and Characteristic Curves (ACPDV3V3-HF Thru. ACPDV36V-HF)

Fig.1 - Pulse Waveform

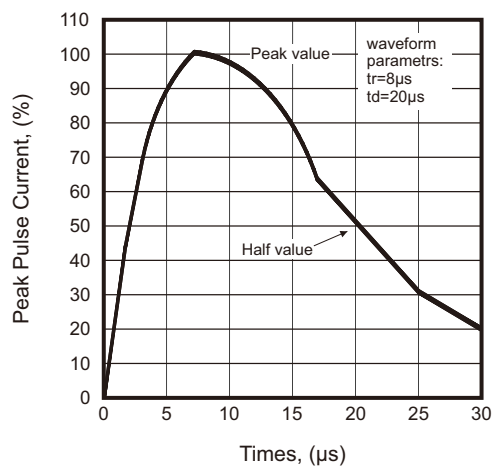


Fig.2 - Non-Repetitive Peak Pulse Power vs. Pulse Time

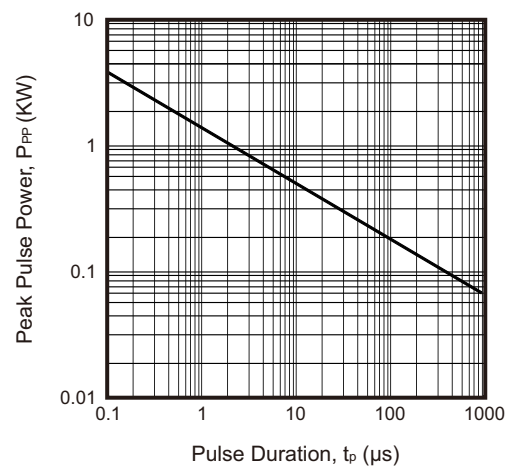


Fig.3 - Pulse Derating Curve

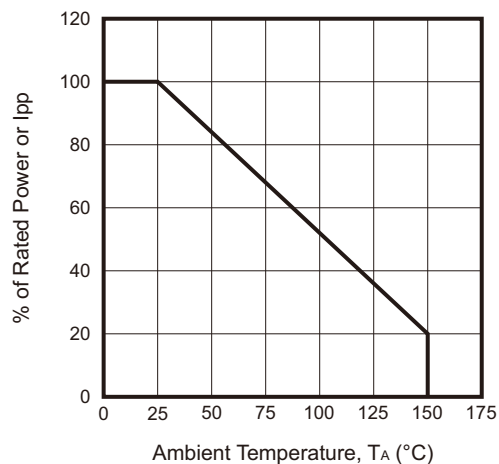
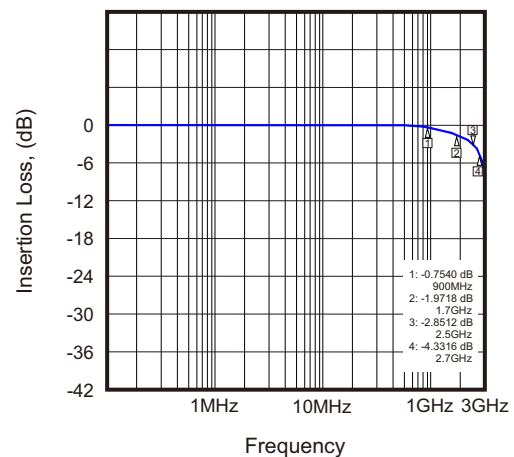
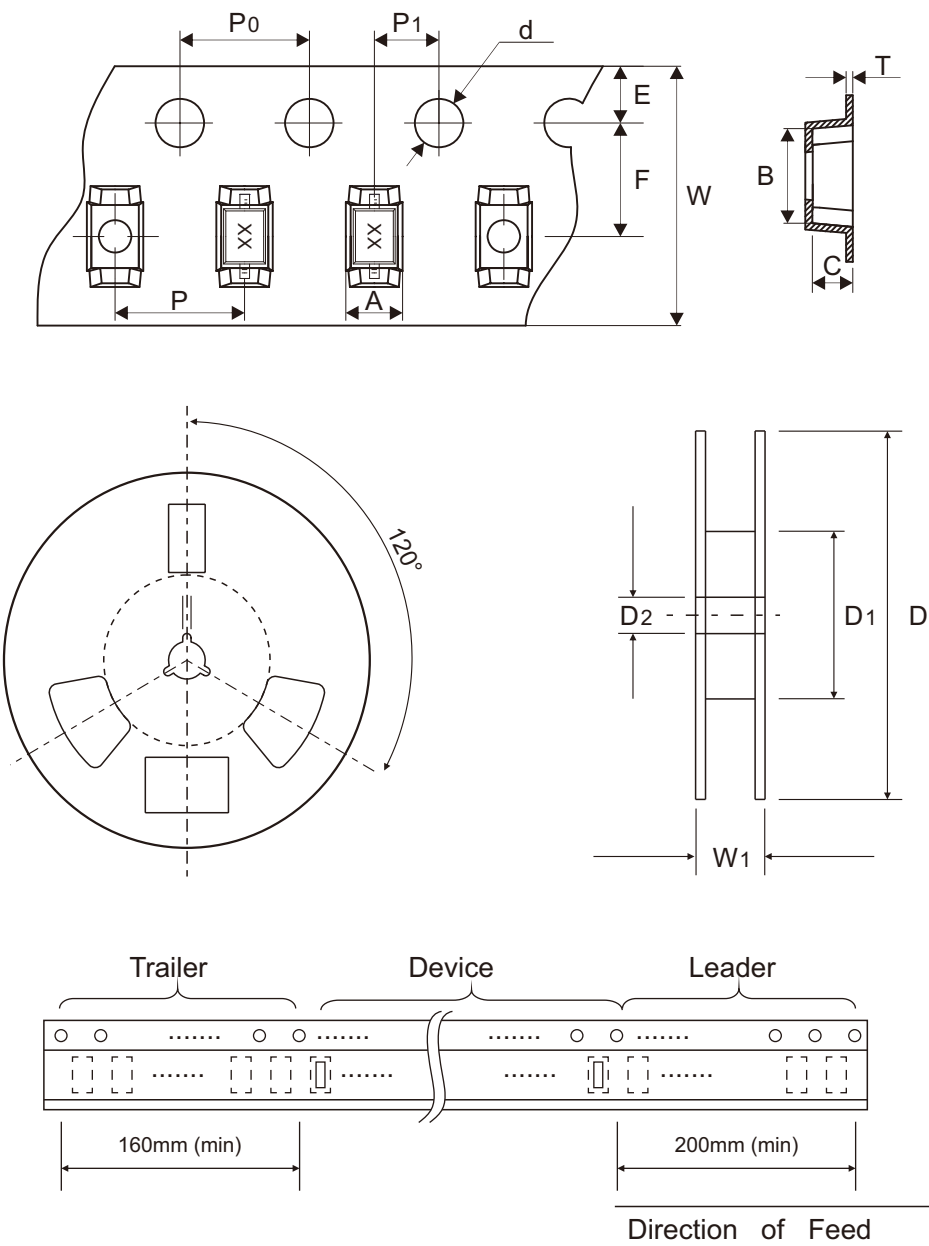


Fig.4 - Insertion loss S21



Reel Taping Specification



SOD-323	SYMBOL	A	B	C	d	D	D1	D2
	(mm)	1.50 ± 0.10	3.00 ± 0.10	1.25 ± 0.10	1.50 ± 0.10	178.00 ± 1.00	54.50 ± 0.50	14.60 ± 0.20
	(inch)	0.059 ± 0.004	0.118 ± 0.004	0.049 ± 0.004	0.059 ± 0.004	7.008 ± 0.039	2.146 ± 0.020	0.575 ± 0.008

SOD-323	SYMBOL	E	F	P	P0	P1	T	W	W1
	(mm)	1.75 ± 0.10	3.50 ± 0.10	4.00 ± 0.10	4.00 ± 0.10	2.00 ± 0.10	0.23 ± 0.05	8.00 ± 0.10	12.20 ± 0.20
	(inch)	0.069 ± 0.004	0.138 ± 0.004	0.157 ± 0.004	0.157 ± 0.004	0.079 ± 0.004	0.009 ± 0.002	0.315 ± 0.004	0.480 ± 0.008

Marking Code

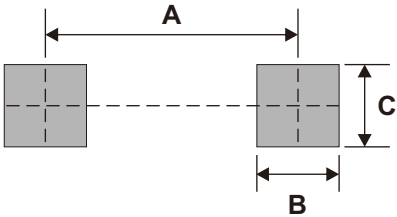
Part Number	Marking Code
ACPDV3V3-HF	CC
ACPDV5V0-HF	AC
ACPDV8V0-HF	BC
ACPDV12V-HF	DC
ACPDV15V-HF	EC
ACPDV24V-HF	HC
ACPDV36V-HF	GC



xx = Product type marking code

Suggested P.C.B. PAD Layout

SIZE	SOD-323	
	(mm)	(inch)
A	2.15	0.085
B	0.70	0.028
C	0.70	0.028



Standard Packaging

Case Type	REEL PACK	
	REEL (pcs)	Reel Size (inch)
SOD-323	3,000	7