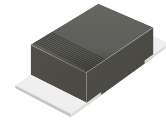


CDBFN1200-HF

RoHS Device
Halogen free

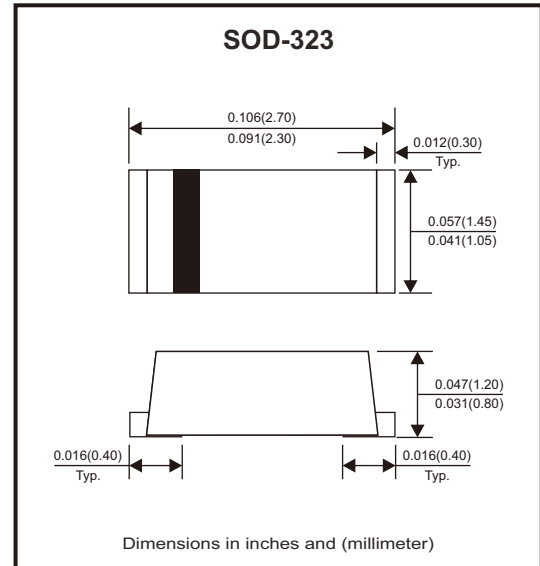


Features

- Low profile surface mounted application in order to optimize board space.
- Low power loss, high efficiency.
- High current capability, low forward voltage drop.
- High surge capability.
- Guardring for overvoltage protection.
- Very tiny plastic SMD package.
- Ultra high-speed switching.
- Silicon epitaxial planar chip, metal silicon junction.

Mechanical data

- Case: Molded plastic, SOD-323.
- Epoxy: UL94-V0 rated flame retardant.
- Terminals: Plated terminals, solderable per MIL-STD-750, method 2026.
- Polarity: Indicated by cathode band.
- Mounting position: Any.



Circuit Diagram



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

Parameter	Symbol	CDBFN1200-HF	Unit
Repetitive peak reverse voltage	V_{RRM}	200	V
Maximum RMS voltage	V_{RMS}	140	V
Continuous reverse voltage	V_R	200	V
Average forward rectified current	I_o	1.0	A
Non-repetitive peak forward surge current 8.3ms single half sine-wave	I_{FSM}	30	A
Max. instantaneous forward voltage at $I_F = 1A$	V_F	0.9	V
Max. reverse leakage current at rated V_R $T_J=25^\circ C$ $T_J=125^\circ C$	I_R	0.01 0.3	mA
Typ. thermal resistance junction to ambient (Note 2)	$R_{\theta JA}$	80	$^\circ C/W$
Typ. thermal resistance junction to case (Note 2)	$R_{\theta JC}$	50	$^\circ C/W$
Typical junction capacitance (Note 1)	C_J	25	pF
Operating junction temperature range	T_J	-55 to +150	$^\circ C$
Storage temperature range	T_{STG}	-65 to +175	$^\circ C$

Notes: 1. Measured at 1MHz and applied reverse voltage of 4.0V D.C.
2. Mounted on FR-4 PCB copper, minimum recommended pad layout.

Company reserves the right to improve product design, functions and reliability without notice.

REV:A

Rating and Characteristic Curves (CDBFN1200-HF)

Fig.1 - Typical Forward Current Derating Curve

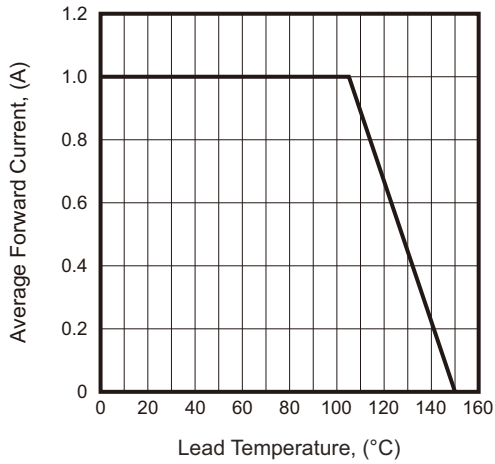


Fig.2 - Typical Forward Characteristics

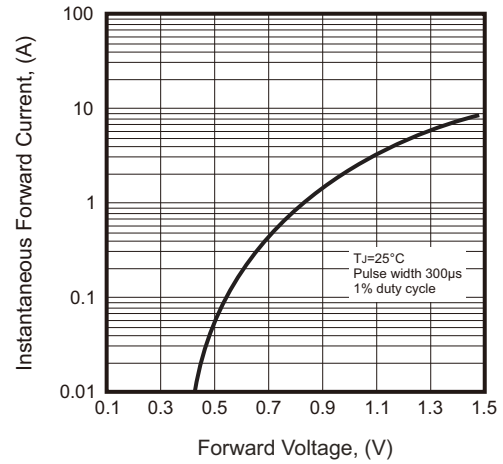


Fig.3 - Max. Non-Repetitive Forward Surge Current

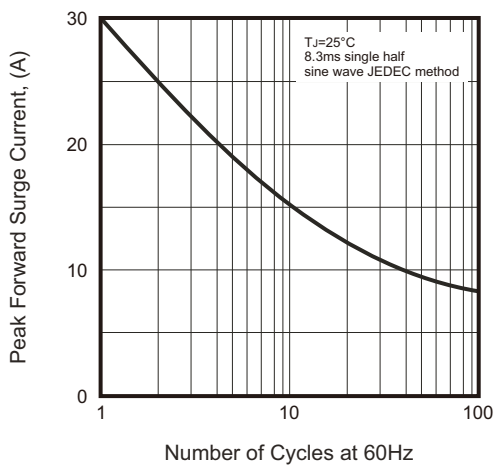


Fig.4 - Typical Junction Capacitance

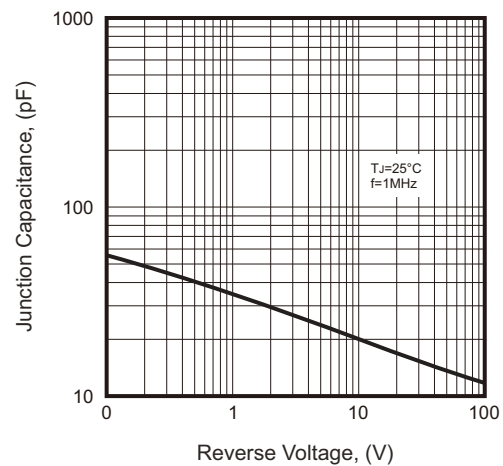
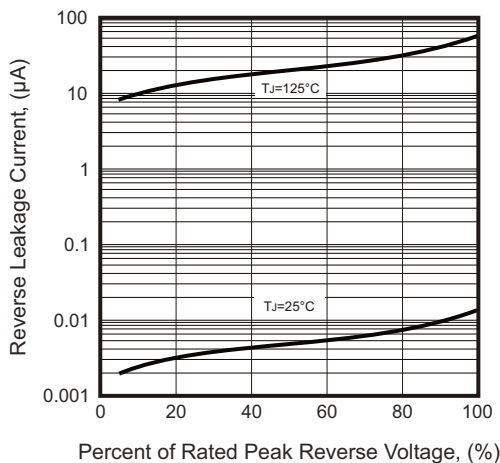
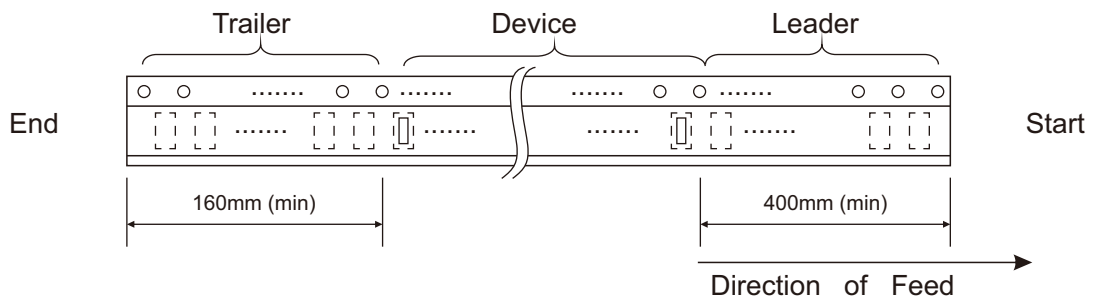
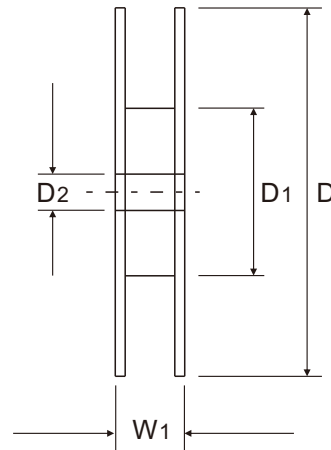
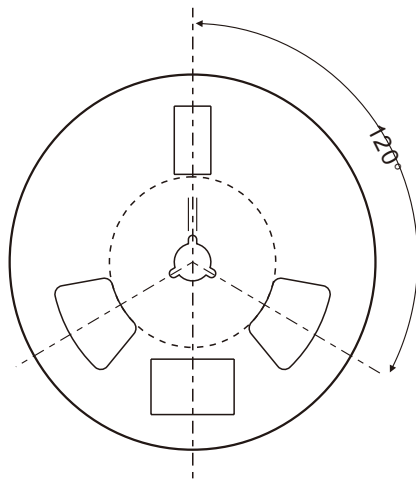
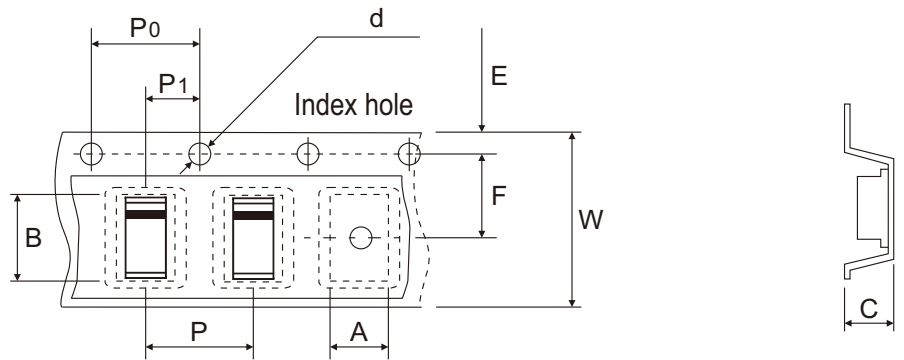


Fig.5 - Typical Reverse Characteristics



Reel Taping Specification



SOD-323	SYMBOL	A	B	C	d	D	D1	D2
	(mm)	1.47 ± 0.10	2.95 ± 0.10	1.15 ± 0.10	1.50 ± 0.10	178.00 ± 2.00	62.00 Min	13.00 ± 0.50
	(inch)	0.058 ± 0.004	0.116 ± 0.004	0.045 ± 0.004	0.059 ± 0.004	7.008 ± 0.079	2.441 Min	0.512 ± 0.020

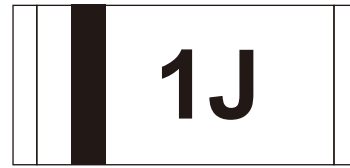
SOD-323	SYMBOL	E	F	P	P0	P1	W	W1
	(mm)	1.75 ± 0.10	3.50 ± 0.10	4.00 ± 0.10	4.00 ± 0.10	2.00 ± 0.10	8.00 ± 0.30	11.40 ± 1.00
	(inch)	0.069 ± 0.004	0.138 ± 0.004	0.157 ± 0.004	0.157 ± 0.004	0.079 ± 0.004	0.315 ± 0.012	0.449 ± 0.039

Company reserves the right to improve product design, functions and reliability without notice.

REV:A

Marking Code

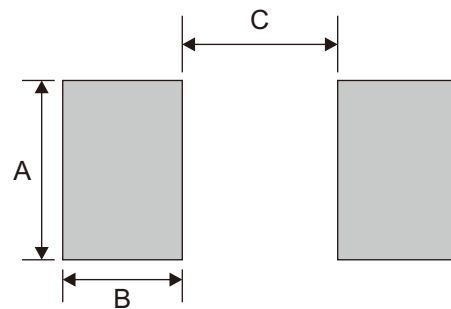
Part Number	Marking Code
CDBFN1200-HF	1J



█ = Cathode band

Suggested P.C.B. PAD Layout

SIZE	SOD-323	
	(mm)	(inch)
A	1.50	0.059
B	1.00	0.039
C	1.30	0.051



Note: 1. The pad layout is for reference purposes only.

Standard Packaging

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