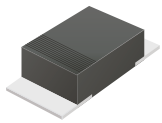
CDBFN120-G Thru. CDBFN1100-G

Voltage: 20 to 100 Volts
Current: 1.0 Amp
RoHS Device



Features

-Batch process design, excellent power dissipation offers better reverse leakage current.

-Low profile surface mounted application in order to optimize board space.

-Low power loss, high efficiency.

-High current capability, low forward voltage dorp.

-High surge capability.

-Guardring for overvoltage protection.

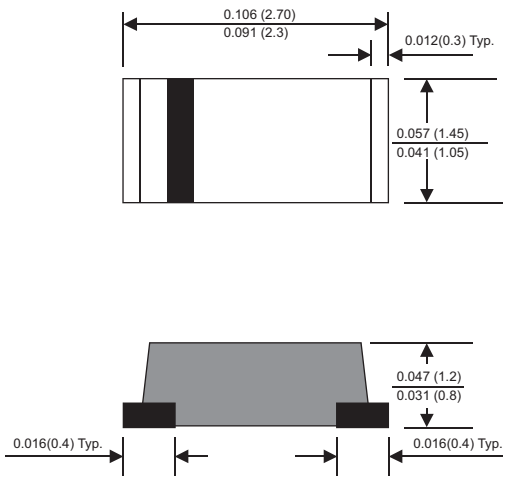
-Very iny plastic SMD package.

-Ultra high-speed switching.

-Silicon epitaxial planarchip, metal silicon junction.

-Lead-free parts meet environmental standards of MIL-STD-19500 /228

SOD-323



Dimensions in inches and (millimeter)

Mechanical data

-Case: JEDEC SOD-323, Molded plastic

-Terminals: Solde plated, solderable per MIL-STD-750, method 2026.

-Polarity: Indicated by cathode band.

-Mounting position: Any

-Weight: 0.008 gram(approx.).

Maximum Ratings (at T_A=25°C unless otherwise noted)

Parameter	Symbol	CDBFN 120-G	CDBFN 130-G	CDBFN 140-G	CDBFN 150-G	CDBFN 160-G	CDBFN 180-G	CDBFN 1100-G	Unit
Repetitive peak reverse voltage	V_{RRM}	20	30	40	50	60	80	100	V
Maximum RMS voltage	V_{RMS}	14	21	28	35	42	56	70	V
Continuous reverse voltage	V_R	20	30	40	50	60	80	100	V
Maximum forward voltage @I_F=1.0A	V_F	0.55			0.70		0.85		V
Forward rectified current	I_O	1.0							A
Forward surge current, 8.3ms half sine wave superimposed on rated load (JEDEC method)	I_{FSM}	30							A
Reverse current on V_R=V_{RRM} @T_A=25°C @T_A=125°C	I_R	0.5 10							mA
Typ. thermal resistance, junction to ambient air	$R_{\theta JA}$	90							°C/W
Typ. diode junction capacitance (Note 1)	C_J	120							pF
Operating junction temperature	T_J	-55 to +125				-55 to +150			°C
Storage temperature	T_{STG}	-65 to +150							°C

Note 1: f=1MHz and applied 4V DC reverse voltage.

Ratings and Characteristic Curves(CDBFN120-G Thru CDBFN1100-G)

Fig.1 Typical Forward Current Derating Curve

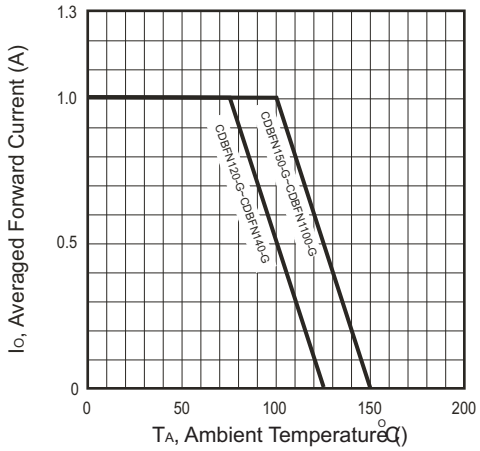


Fig.2 Typical Forward Characteristics

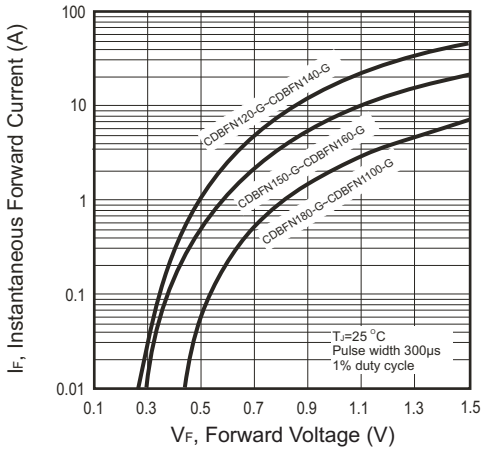


Fig.3 Maximum Non-repetitive Peak Forward Surge Current

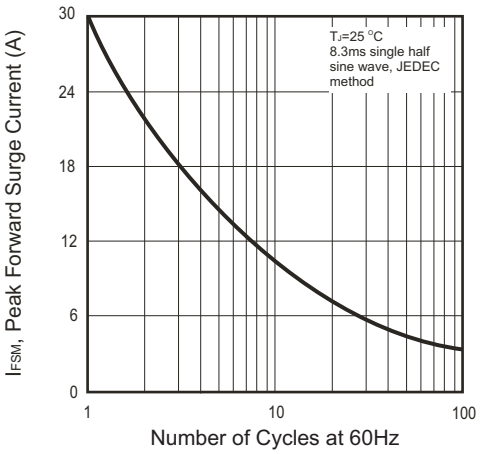


Fig.4 Typical Junction Capacitance

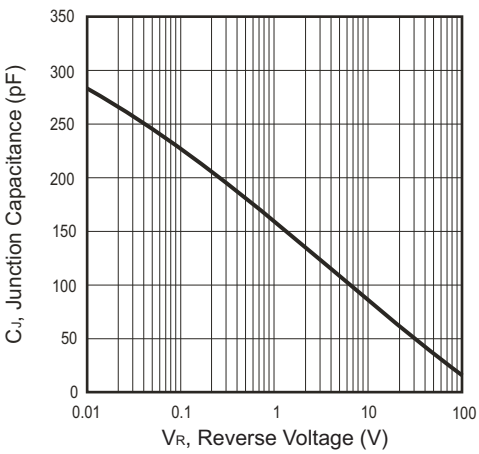
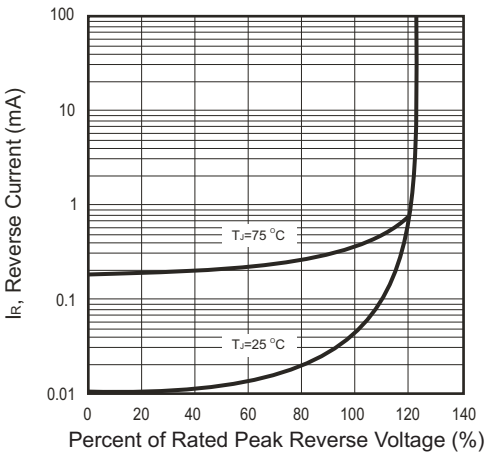
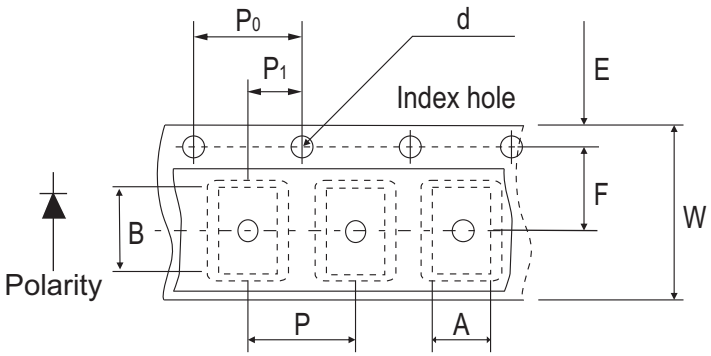
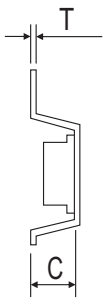


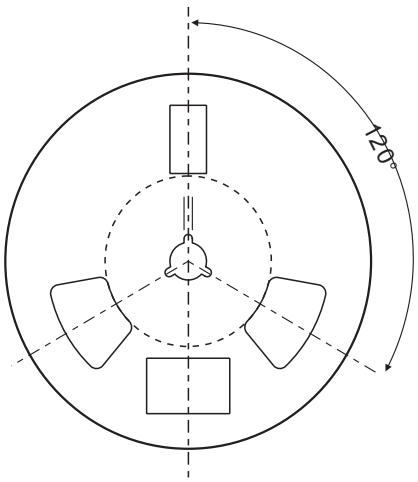
Fig.5 Typical Reverse Characteristics

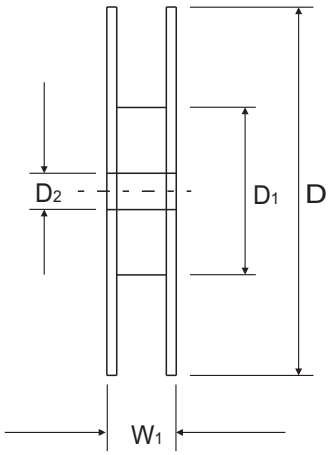


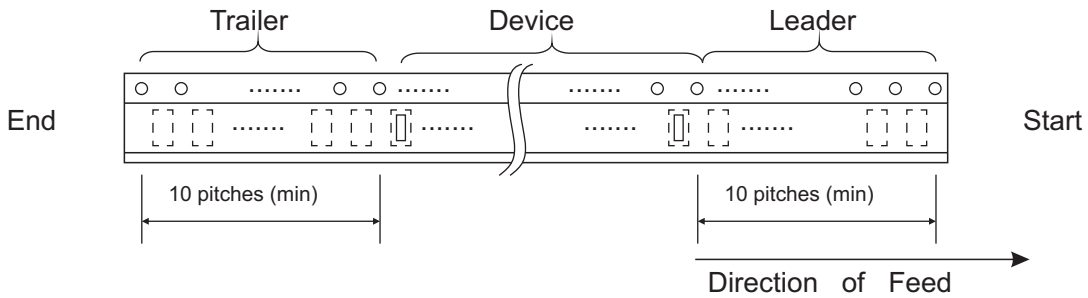
Reel Taping Specification











	SYMBOL	A	B	C	d	D	D1	D2
SOD-323	(mm)	1.47 ± 0.10	2.95± 0.10	1.15 ± 0.10	1.50 ± 0.10	178 ± 1	62.0 MIN.	13.0 ± 0.20
	(inch)	0.057 ± 0.004	0.116 ± 0.004	0.045 ± 0.004	0.059 ± 0.004	7.008 ± 0.040	2.44 MIN.	0.512 ± 0.008

	SYMBOL	E	F	P	P0	P1	W	W1
SOD-323	(mm)	1.75 ± 0.10	3.50 ± 0.05	4.00 ± 0.10	4.00 ± 0.10	2.00 ± 0.05	8.00 ± 0.30	11.4 MAX.
	(inch)	0.069 ± 0.004	0.138 ± 0.002	0.157 ± 0.004	0.157 ± 0.004	0.079 ± 0.002	0.315 ± 0.012	0.449 MAX

Marking Code

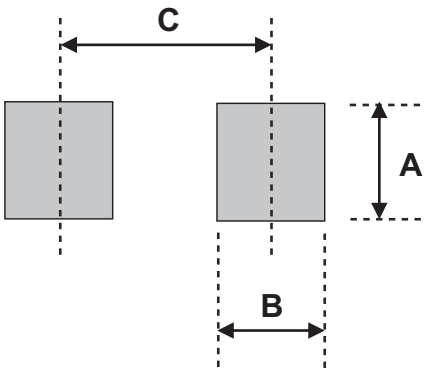
Park Number	Marking Code
CDBFN120-G	12
CDBFN130-G	13
CDBFN140-G	14
CDBFN150-G	15
CDBFN160-G	16
CDBFN180-G	18
CDBFN1100-G	10



XX=Product type marking code

Suggested PAD Layout

SIZE	SOD-323	
	(mm)	(inch)
A	1.500	0.059
B	1.000	0.039
C	1.300	0.051



Standard Packaging

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