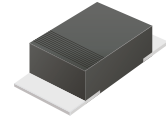


## CDBFN120-G Thru CDBFN1100-G

Voltage: 20 to 100 Volts

Current: 1.0 Amp

RoHS Device

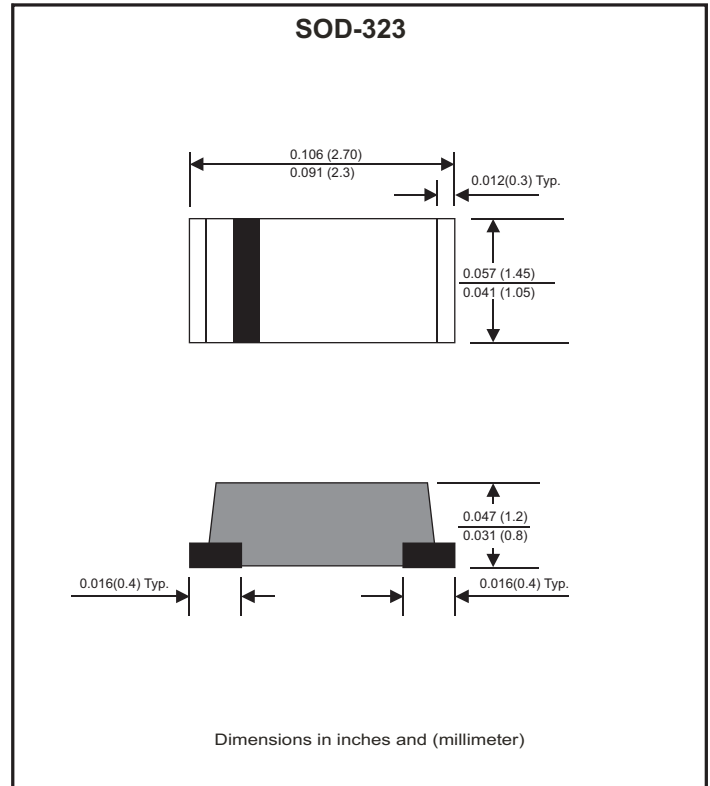


### Features

- 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 drop.
- High surge capability.
- Guardring for overvoltage protection.
- Very tiny plastic SMD package.
- Ultra high-speed switching.
- Silicon epitaxial planar chip, metal silicon junction.
- Lead-free parts meet environmental standards of MIL-STD-19500 /228

### 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 TA=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 <sub>RRM</sub>	20	30	40	50	60	80	100	V
Maximum RMS voltage	V <sub>RMS</sub>	14	21	28	35	42	56	70	V
Continuous reverse voltage	V <sub>R</sub>	20	30	40	50	60	80	100	V
Maximum forward voltage @I <sub>F</sub> =1.0A	V <sub>F</sub>	0.55		0.70		0.85			V
Forward rectified current	I <sub>O</sub>	1.0							A
Forward surge current, 8.3ms half sine wave superimposed on rated load (JEDEC method)	I <sub>FSM</sub>	30							A
Reverse current on V <sub>R</sub> =V <sub>RRM</sub> @T <sub>A</sub> =25°C @T <sub>A</sub> =125°C	I <sub>R</sub>				0.5				mA
Typ. thermal resistance, junction to ambient air	R <sub>θJA</sub>				90				°C/W
Typ. diode junction capacitance (Note 1)	C <sub>J</sub>				120				pF
Operating junction temperature	T <sub>J</sub>				-55 to +125		-55 to +150		°C
Storage temperature	T <sub>STG</sub>	-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

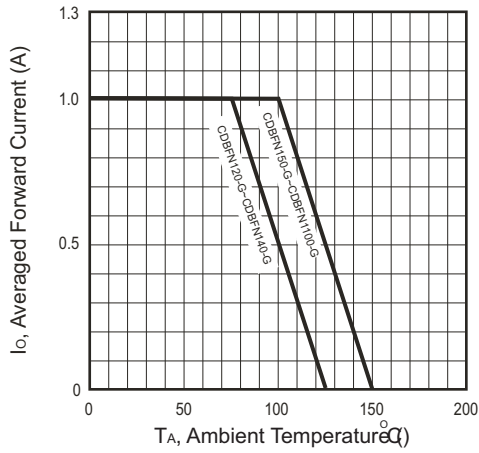


Fig.2 Typical Forward Characteristics

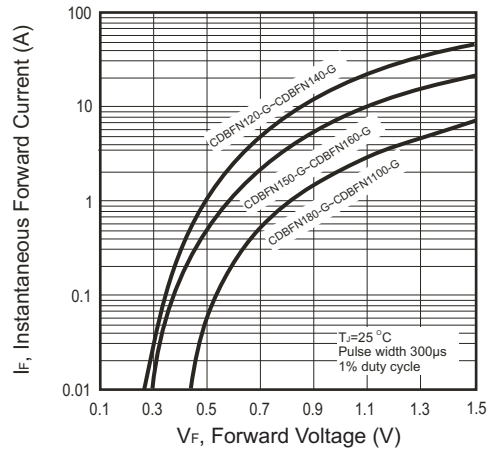


Fig.3 Maximum Non-repetitive Peak Forward Surge Current

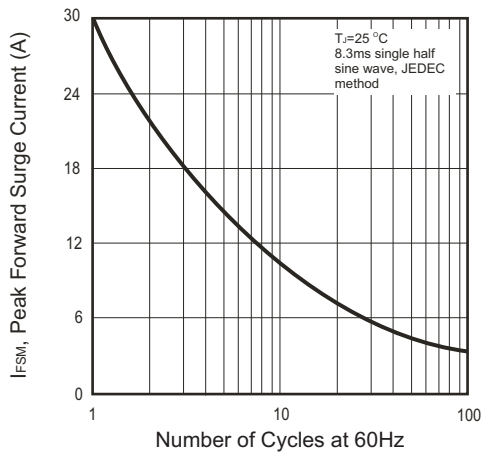


Fig.4 Typical Junction Capacitance

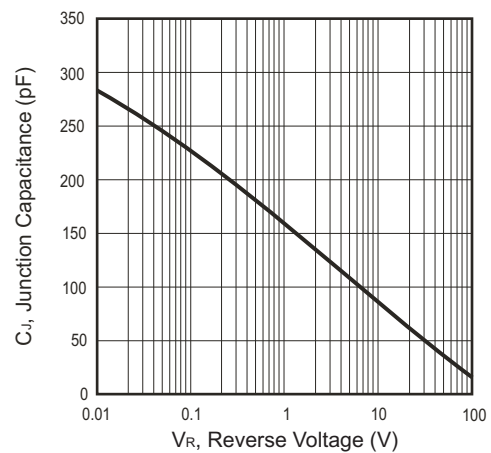
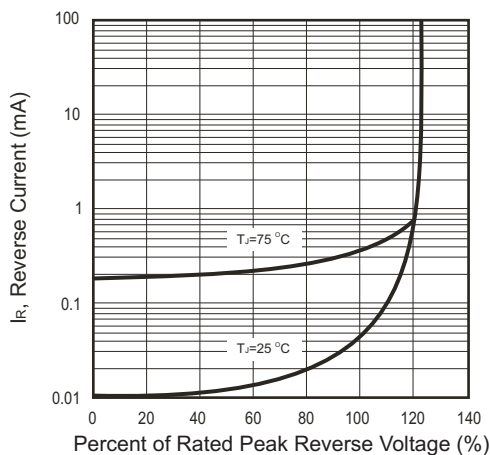
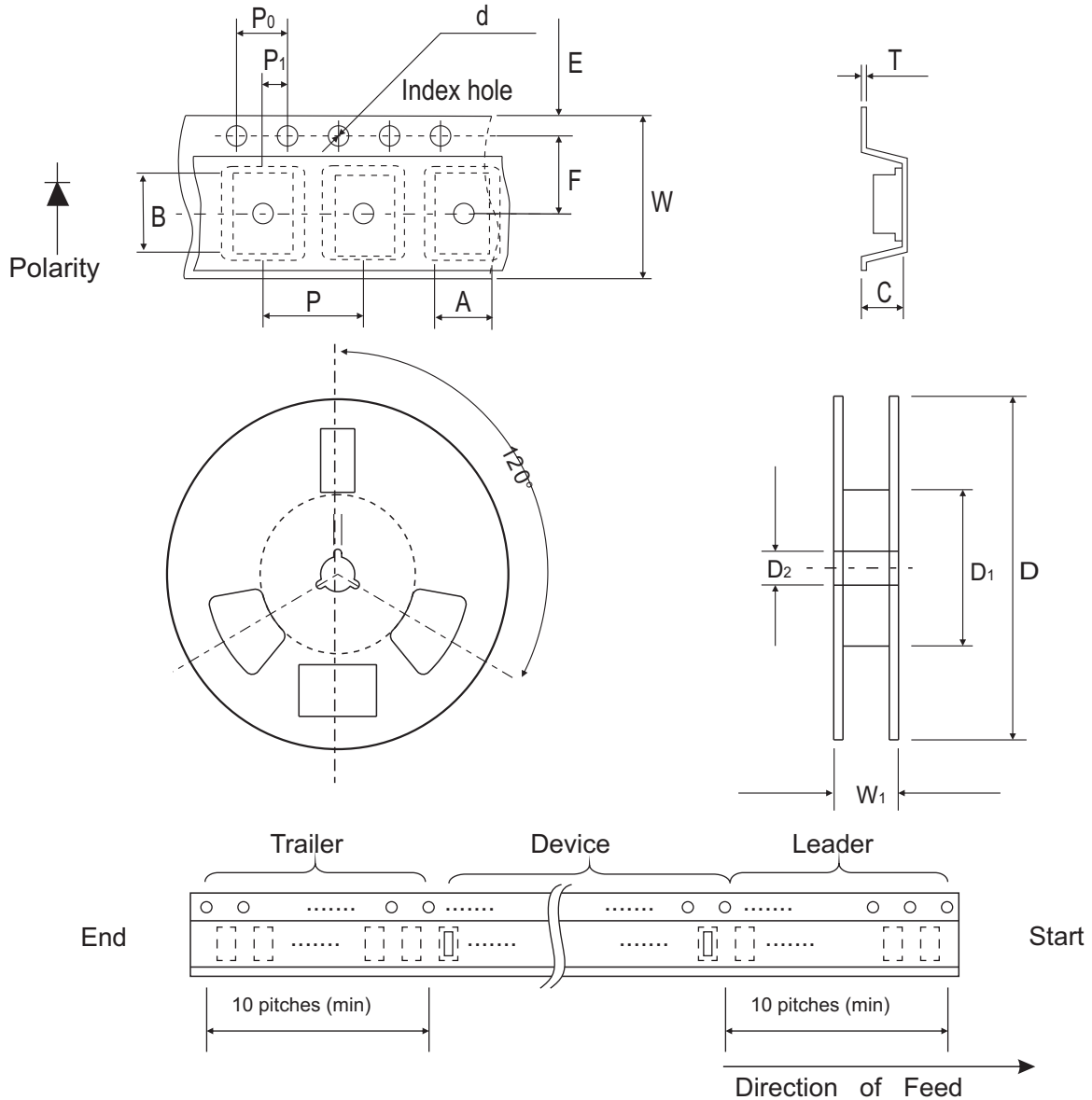


Fig.5 Typical Reverse Characteristics



## Reel Taping Specification



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 ± 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

SOD-323	SYMBOL	E	F	P	P0	P1	W	W1
	(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

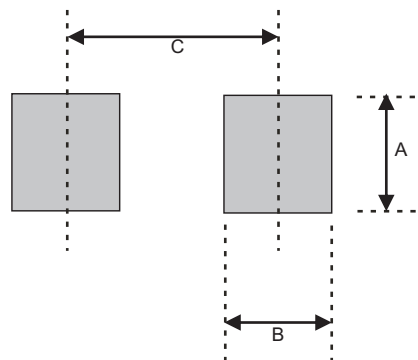
Park Number	Marking Code
CDBFN120-G	12
CDBFN130-G	13
CDBFN140-G	14
CDBFN150-G	15
CDBFN160-G	16
CDBFN180-G	18
CDBFN1100-G	10



XX=Product type marking code

## Suggested PAD Layout

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



## Standard Package

Case Type	Qty per Reel	Reel Size
	(Pcs)	(inch)
SOD-323	3000	7