

CDBV120-G Thru. CDBV140-G

Forward current: 1.0A

Reverse voltage: 20 to 40V

RoHS Device



Features

- For use in low voltage, high frequency inverters.
- Free wheeling, and polarity protection applications.

Mechanical Data

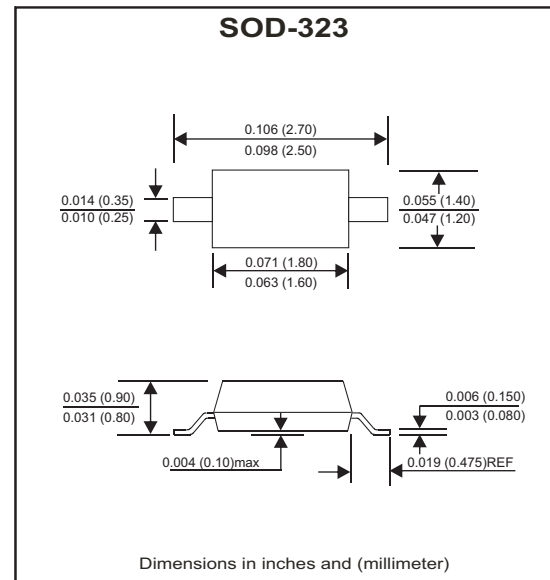
- Case: SOD-323, molded plastic.
- Terminals: solderable per MIL-STD-750, method 2026.
- Polarity: indicated by cathode end.

Marking

CDBV120-G: SJ

CDBV130-G: SK

CDBV140-G: SL



Maximum Ratings (At Ta=25°C, unless otherwise noted)

Parameter	Symbol	CDBV120-G	CDBV130-G	CDBV140-G	Unit
Non-repetitive peak reverse voltage	V_{RM}	20	30	40	V
Peak repetitive peak reverse voltage	V_{RRM}	20	30	40	V
Working peak reverse voltage	V_{RWM}				
DC blocking voltage	V_R				
RMS reverse voltage	$V_{R(RMS)}$	14	21	28	V
Average rectified output current	I_O	1			A
Peak forward surge current @8.3ms	I_{FSM}	9			A
Repetitive peak forward current	I_{FRM}	1.5			A
Power dissipation	P_D	250			mW
Thermal resistance, junction to ambient	$R_{\theta JA}$	500			°C/W
Storage temperature	T_{STG}	-65 ~ +150			°C

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

Parameter	Conditions	Symbol	Min.	Max.	Unit
Reverse breakdown voltage	CDBV120-G CDBV130-G CDBV140-G $I_R=1mA$	V_{BR}	20 30 40		V
Reverse voltage leakage current	CDBV120-G CDBV130-G CDBV140-G $V_R=20V$ $V_R=30V$ $V_R=40V$	I_R		1	mA
Forward voltage	CDBV120-G CDBV130-G CDBV140-G $I_F=1A$	V_F		0.45 0.55 0.60	V
	CDBV120-G CDBV130-G CDBV140-G $I_F=3A$			0.75 0.875 0.90	
Diode capacitance	$V_R=4V, f=1MHz$	C_D		120	pF

RATING AND CHARACTERISTIC CURVES (CDBV120-G Thru. CDBV140-G)

Fig.1- Forward Current Derating Curve

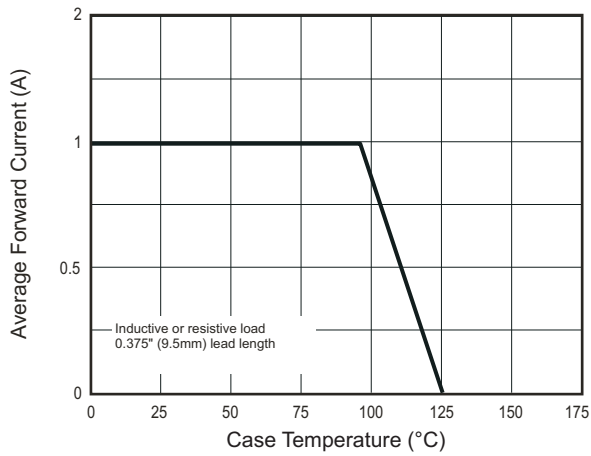


Fig.2- Maximum Non-Repetitive Peak Forward Surge Current

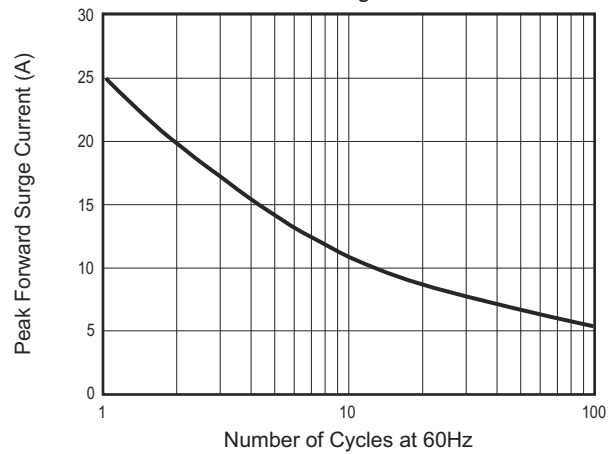


Fig.3- Typical Instantaneous Forward Characteristics

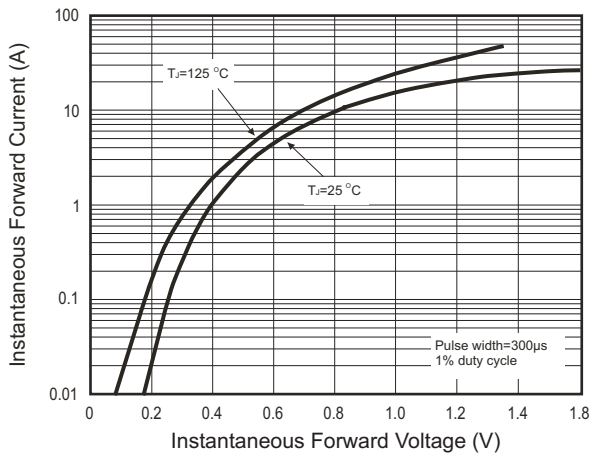


Fig.4- Typical Reverse Characteristics

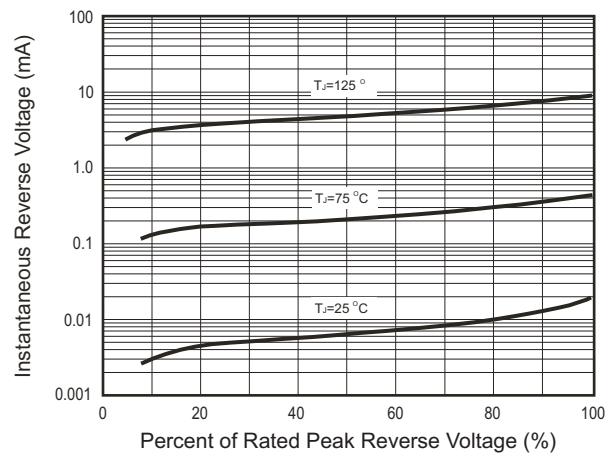


Fig.5- Typical Junction Capacitance

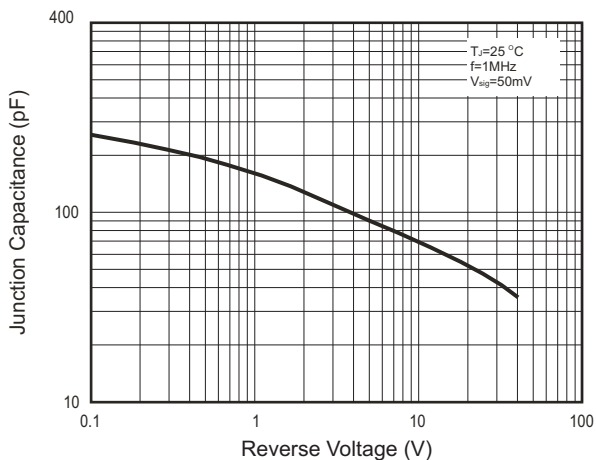
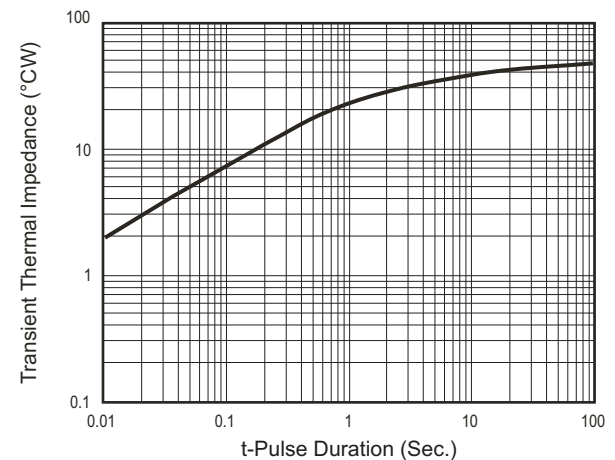
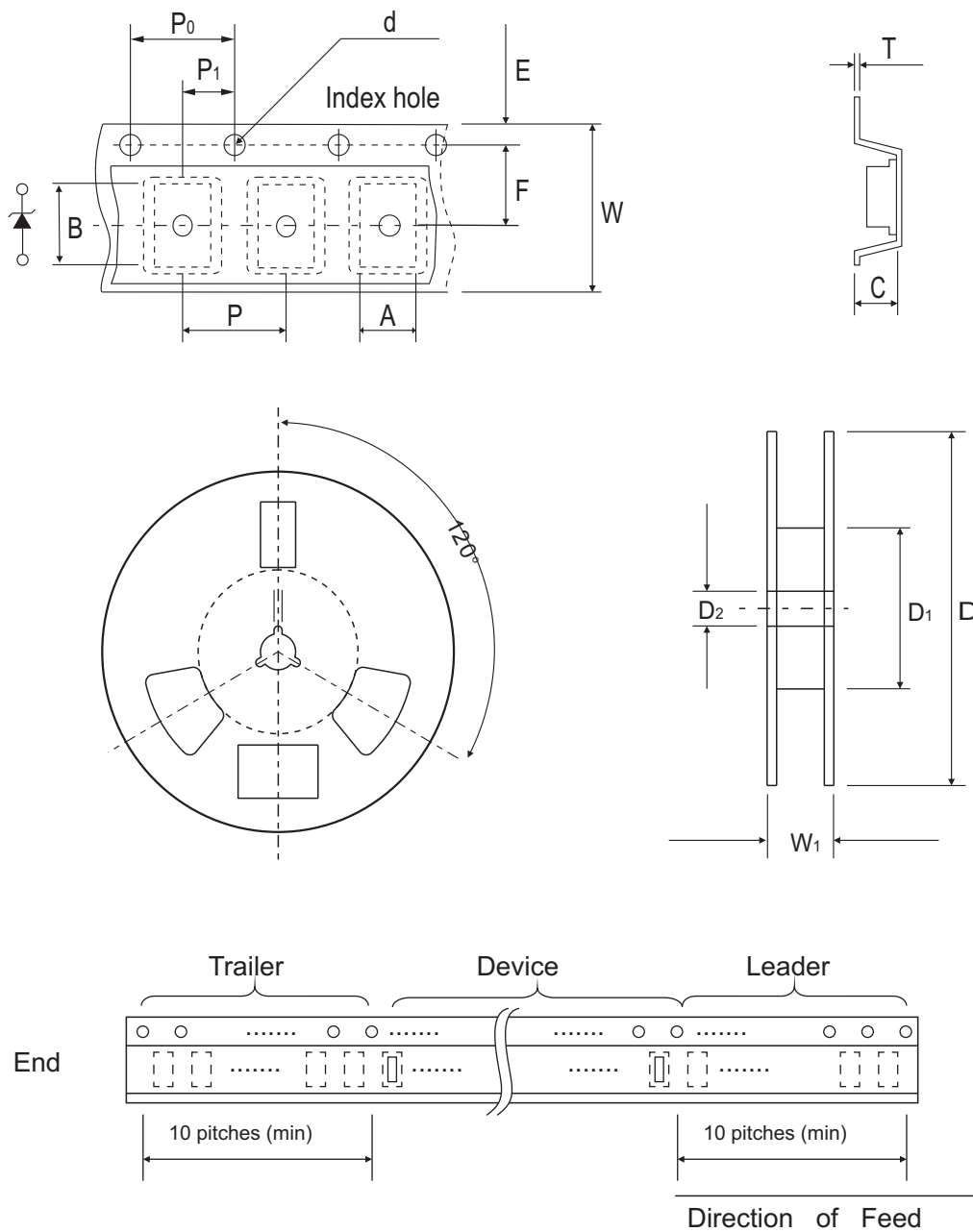


Fig.6- Typical Transient Thermal Impedance



Reel Taping Specification



SOD-323	SYMBOL	A	B	C	d	D	D1	D2
	(mm)	1.46 ± 0.10	2.90 ± 0.10	1.25 ± 0.10	1.50 ± 0.10	178 ± 1.00	54.40 ± 0.40	13.00 ± 0.20
	(inch)	0.057 ± 0.004	0.114 ± 0.004	0.049 ± 0.004	0.059 ± 0.004	7.008 ± 0.039	2.142 ± 0.016	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 ± 0.10	$8.00 \pm 0.30 / - 0.10$	9.50 ± 1.00
	(inch)	0.069 ± 0.004	0.138 ± 0.002	0.158 ± 0.004	0.158 ± 0.004	0.079 ± 0.004	$0.315 \pm 0.012 / - 0.004$	0.374 ± 0.039

Marking Code

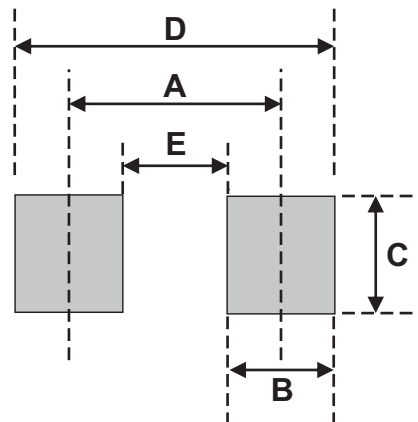
Part Number	Marking Code
CDBV120-G	SJ
CDBV130-G	SK
CDBV140-G	SL



xx = Product type marking code

Suggested PAD Layout

SIZE	SOD-323	
	(mm)	(inch)
A	2.33	0.092
B	0.70	0.028
C	0.70	0.028
D	3.03	0.119
E	1.63	0.064



Standard Packaging

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