

CDBB540-G Thru. CDBB5100-G

Reverse Voltage: 40,60,100 Volts

Forward Current: 5.0 Amp

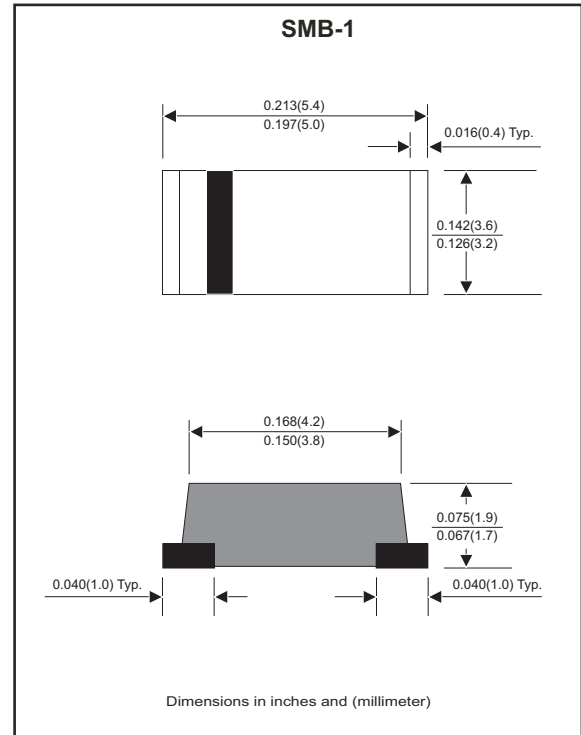
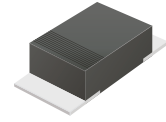
RoHS Device

Features

- Batch process design, excellent power dissipation offers better reverse leakage current and thermal resistance.
- 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.
- 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: Molded plastic, JEDEC SMB.
- Terminals: Solde plated, solderable per MIL-STD-750, method 2026.
- Polarity: Indicated by cathode band.
- Mounting position: Any
- Weight:0.09 gram(approx.).



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

Parameter	Symbol	CDBB540-G	CDBB560-G	CDBB5100-G	Unit
Repetitive peak reverse voltage	V _{RRM}	40	60	100	V
Maximum RMS voltage	V _{RMS}	28	42	70	V
Continuous reverse voltage	V _R	40	60	100	V
Maximum forward voltage @I _F =1.0A	V _F	0.55	0.75	0.85	V
Forward rectified current	I _O	5.0			A
Forward surge current, 8.3ms half sine wave superimposed on rated load (JEDEC method)	I _{FSM}	150			A
Reverse current on V _R =V _{RRM} @T _A =25°C @T _A =125°C	I _R	0.5 50			mA
Typ. thermal resistance, junction to ambient air	R _{θJA}	12			°C/W
Typ. diode junction capacitance (Note 1)	C _J	380			pF
Operating junction temperature	T _J	-55 to +125	-55 to +150		°C
Storage temperature	T _{STG}	-65 to +175			°C

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

Rating and Characteristic Curves (CDBB540-G Thru. CDBB5100-G)

Fig.1 Reverse Characteristics

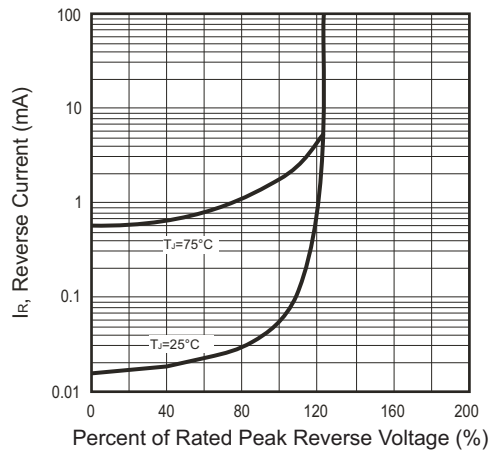


Fig.2 Forward Characteristics

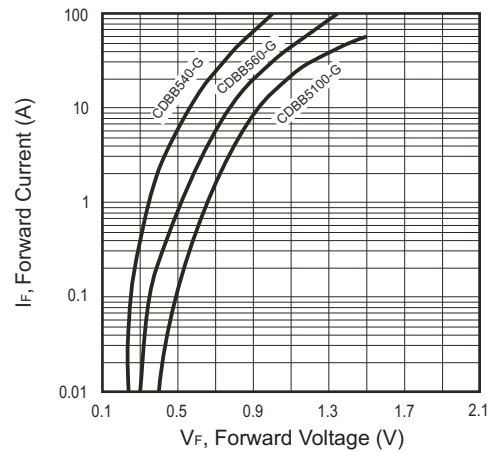


Fig.3 Junction Capacitance

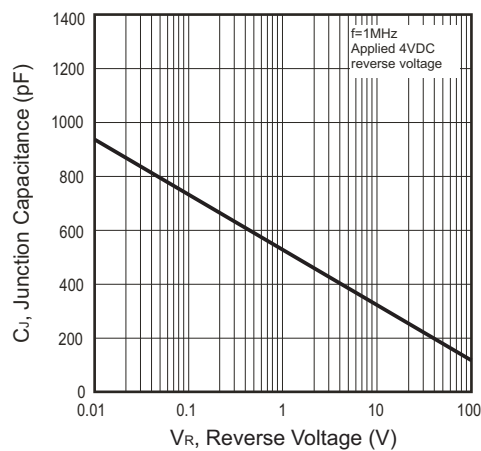


Fig.4 Current Derating Curve

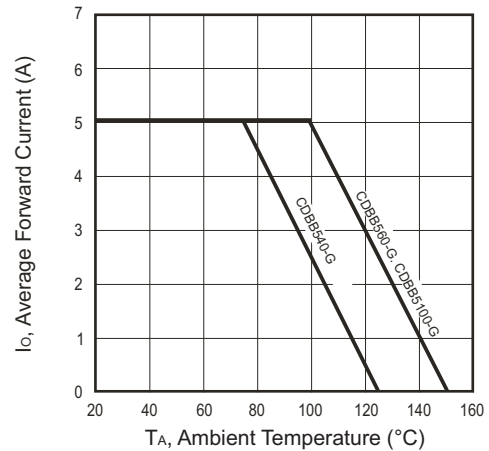
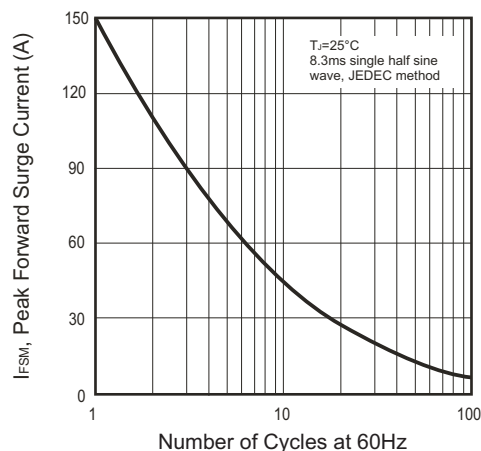
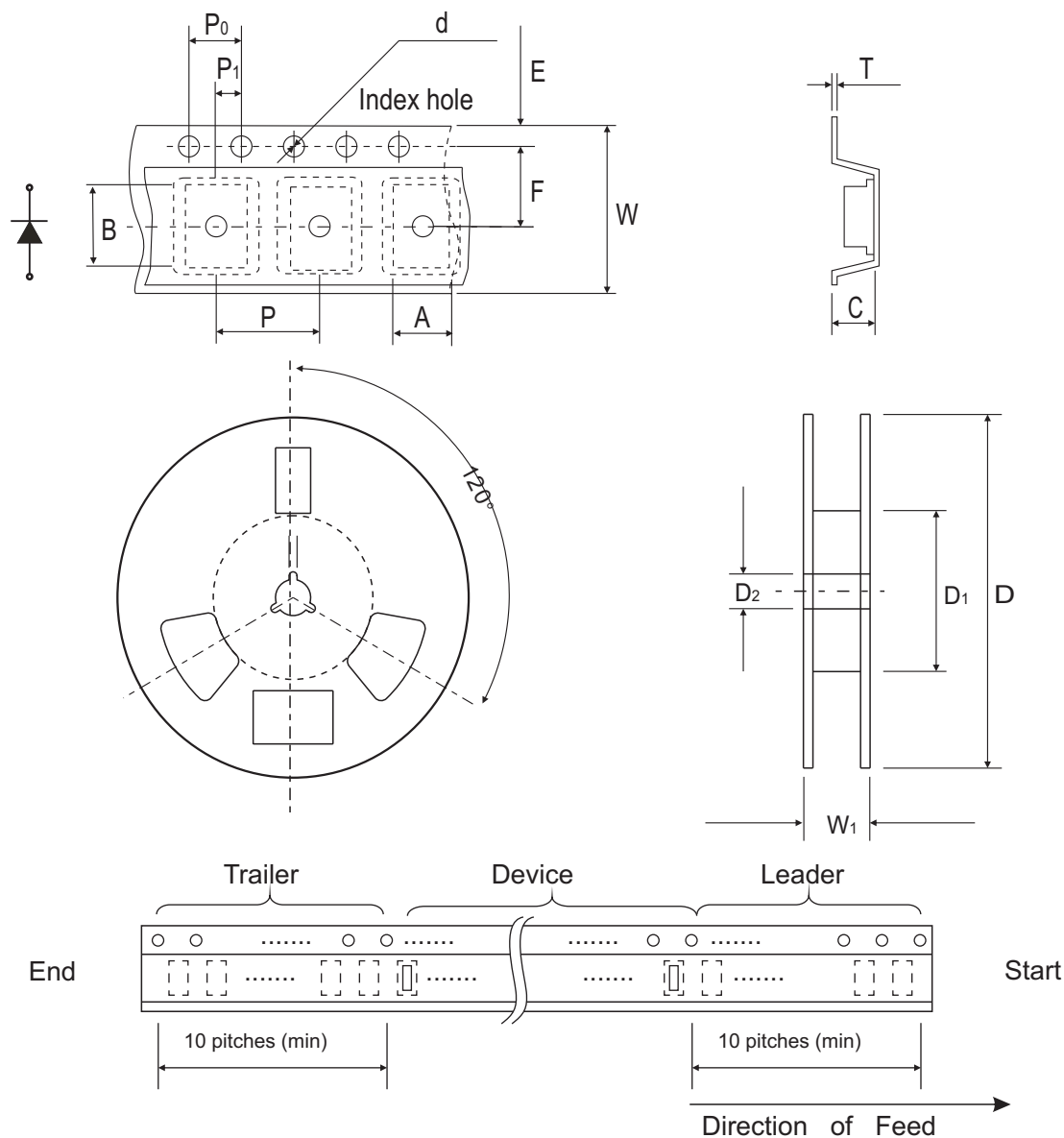


Fig.5 Non-repetitive Forward Surge Current



Reel Taping Specification



SMB	SYMBOL	A	B	C	d	D	D ₁	D ₂
	(mm)	3.81 ± 0.10	5.74 ± 0.10	2.24 ± 0.10	1.50 ± 0.10	330 ± 2.00	50.0 MIN.	13.0 ± 0.50
	(inch)	0.150 ± 0.04	0.226 ± 0.04	0.088 ± 0.04	0.059 ± 0.004	12.99 ± 0.079	1.969 MIN.	0.512 ± 0.020

SMB	SYMBOL	E	F	P	P ₀	P ₁	T	W	W ₁
	(mm)	1.75 ± 0.10	5.50 ± 0.10	8.00 ± 0.10	4.00 ± 0.10	2.00 ± 0.10	0.23 ± 0.10	12.0 ± 0.30	18.0 ± 1.00
	(inch)	0.689 ± 0.004	0.217 ± 0.004	0.315 ± 0.004	0.157 ± 0.004	0.079 ± 0.004	0.009 ± 0.004	0.472 ± 0.012	0.709 ± 0.040

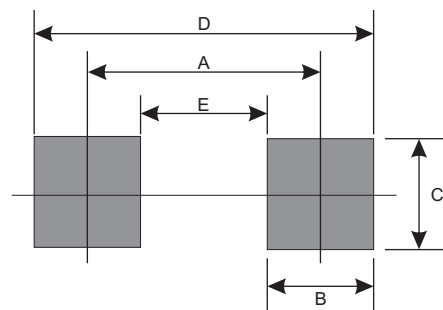
Marking Code

Part Number	Marking Code
CDBB540-G	SS54
CDBB560-G	SS56
CDBB5100-G	SS510



Suggested PAD Layout

SIZE	SMB	
	(mm)	(inch)
A	4.50	0.177
B	1.50	0.059
C	3.60	0.142
D	6.00	0.236
E	3.00	0.118



Standard Package

Case Type	Qty per Reel	Reel Size
	(Pcs)	(inch)
SMB	4000	13