

## CDBB540-G Thru. CDBB5100-G

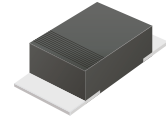
Reverse Voltage: 40,60,100 Volts

Forward Current: 5.0 Amp

RoHS Device

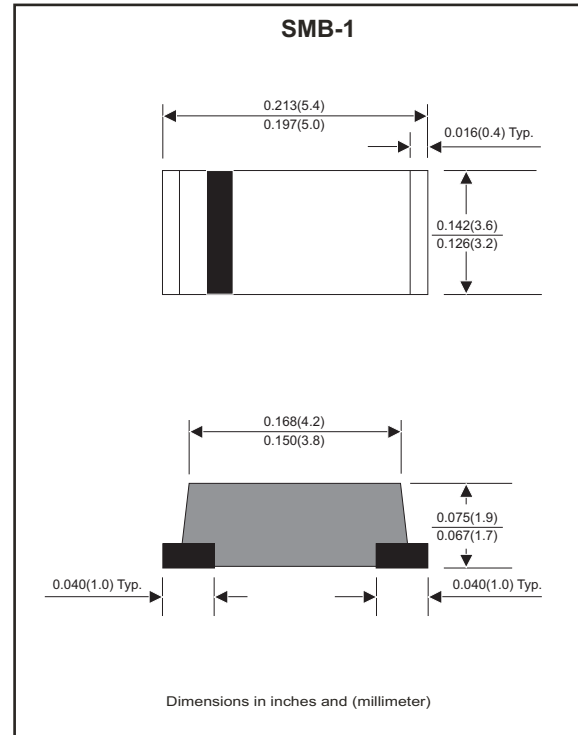
### Features

- 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 $V_R=V_{RRM}$ @ $T_A=25^\circ C$ @ $T_A=125^\circ C$	$I_R$	0.5 50			mA
Typ. thermal resistance, junction to ambient air	$R_{\theta JA}$	12			$^\circ C/W$
Typ. diode junction capacitance (Note 1)	$C_J$	380			pF
Operating junction temperature	$T_J$	-55 to +125	-55 to +150		$^\circ C$
Storage temperature	$T_{STG}$	-65 to +175			$^\circ C$

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

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

Fig.1 Reverse Characteristics

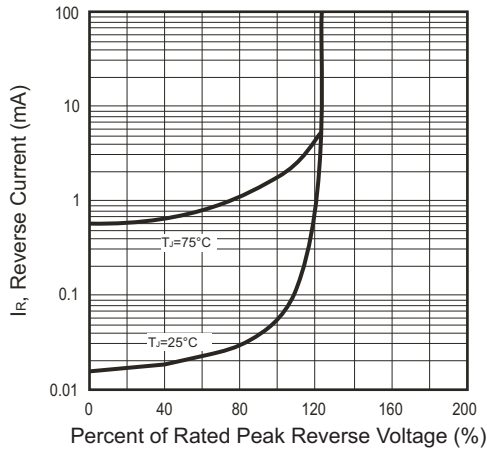


Fig.2 Forward Characteristics

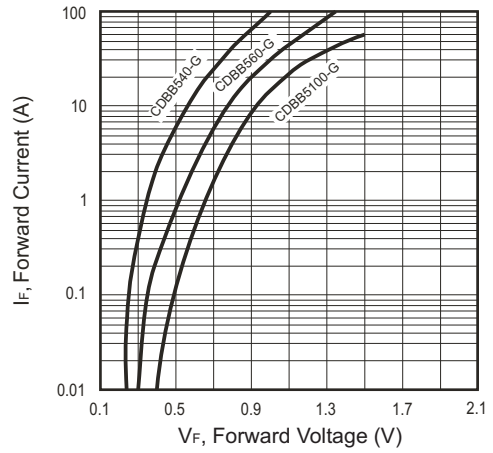


Fig.3 Junction Capacitance

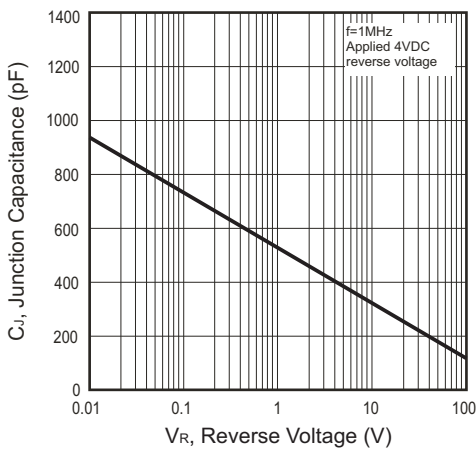


Fig.4 Current Derating Curve

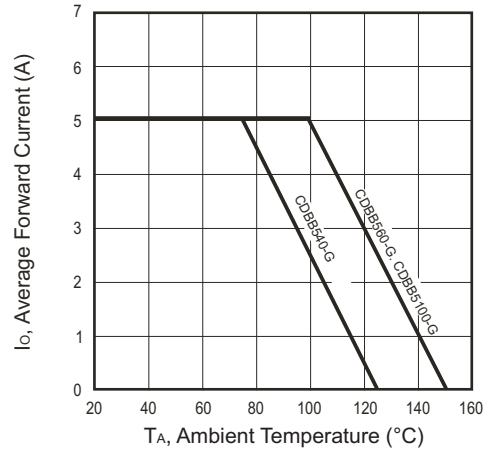
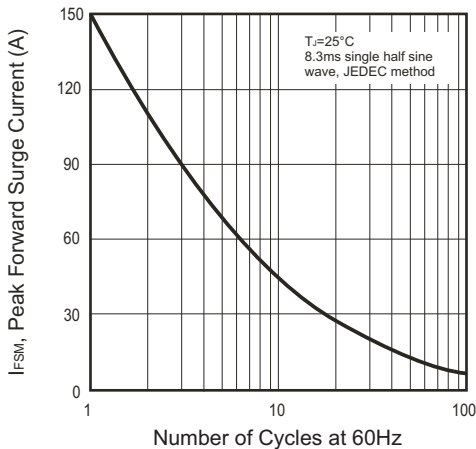
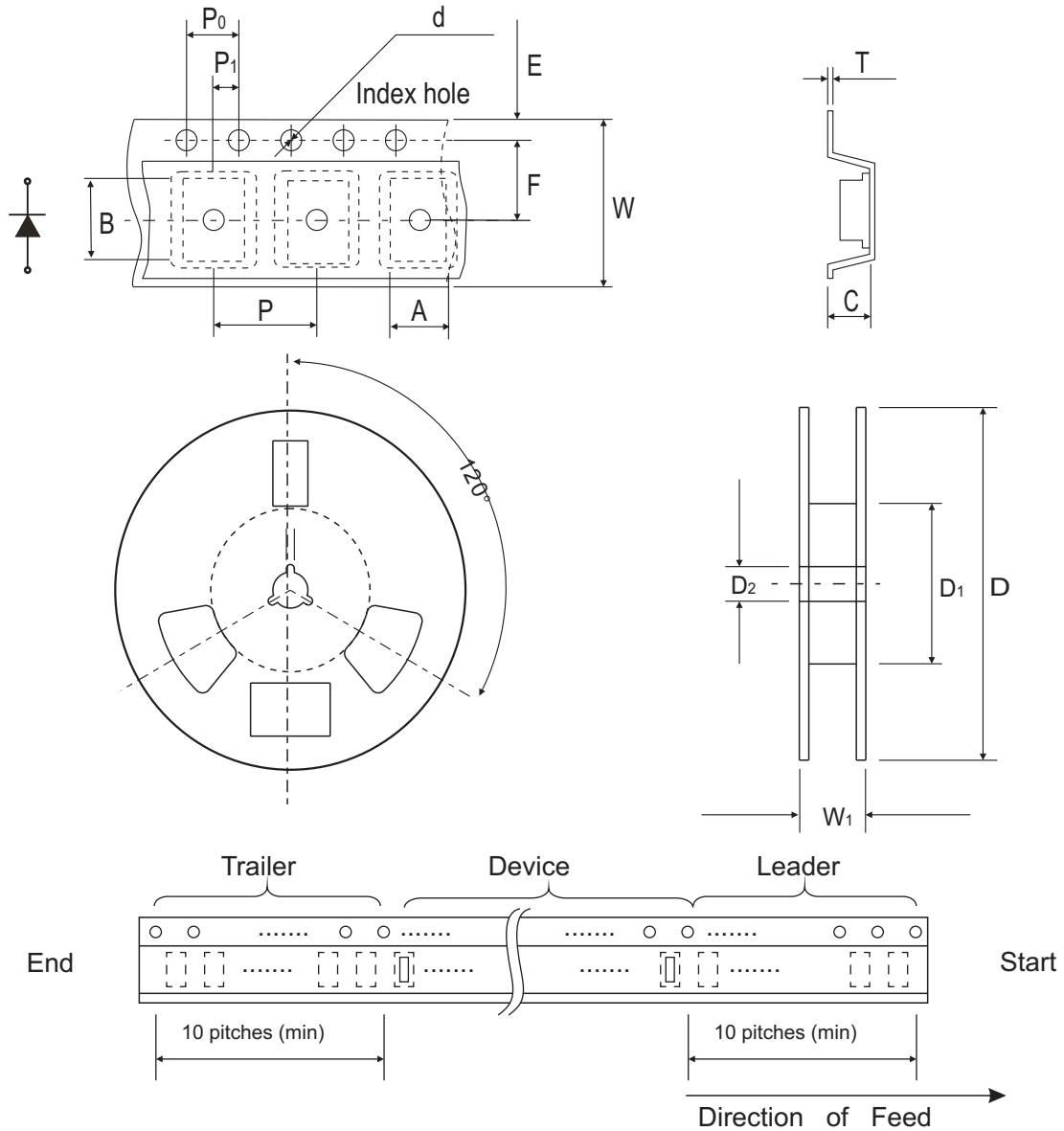


Fig.5 Non-repetitive Forward Surge Current



## Reel Taping Specification



SMB	SYMBOL	A	B	C	d	D	D <sub>1</sub>	D <sub>2</sub>
	(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 <sub>0</sub>	P <sub>1</sub>	T	W	W <sub>1</sub>
	(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

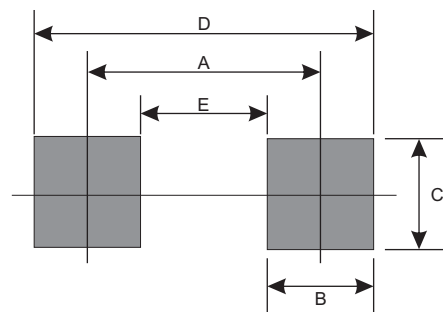
## Marking Code

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