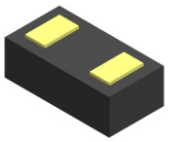
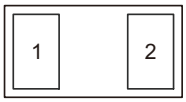
CDBWL0540-HF

Ultra small SMD package
I_F = 500 mA
V_R = 40 V
RoHS Device
Halogen Free



Case 01005A

Outline



Circuit Diagram

Features

- Designed for mounting on small surface.
- Extremely thin package.
- Low stored charge.
- Majority carrier conduction.

Mechanical data

- Case: 01005 package, molded plastic.
- Polarity: Indicated by cathode band.
- Mounting position: Any.

Part number	Package	Reel	Reel size	Marking code
CDBWL0540-HF	01005A	10,000	7 inch	O

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

Parameter	Conditions	Symbol	Value	Unit
Forward current		I_F	500	mA
Reverse voltage		V_R	40	V
Peak forward surge current	8.3ms single half sine-wave superimposed on rate load (JEDEC method)	I_{FSM}	2	A
ESD rating	Human body model Machine model	ESD	4 800	kV V
Junction temperature range		T_J	-55 to +125	°C
Storage temperature range		T_{STG}	-55 to +150	°C

Electrical Characteristics (at T_A=25°C unless otherwise noted)

Parameter	Conditions	Symbol	Min	Typ	Max	Unit
Forward voltage	I_F = 10mA I_F = 100mA I_F = 200mA I_F = 500mA	V_F			300 460 540 800	mV
Reverse current	V_R = 10V V_R = 40V	I_R		1.5 6.0	7 30	μA
Junction capacitance	V_R = 0V, f = 1MHz V_R = 5V, f = 1MHz	C_J		28 6		pF

Typical Rating and Characteristic Curves (CDBWL0540-HF)

Fig.1 - Forward Characteristics

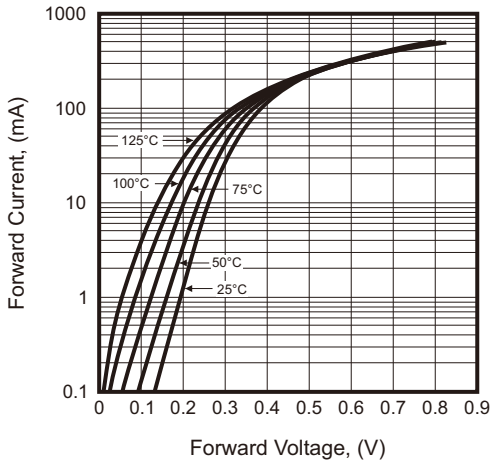


Fig.2 - Reverse Characteristics

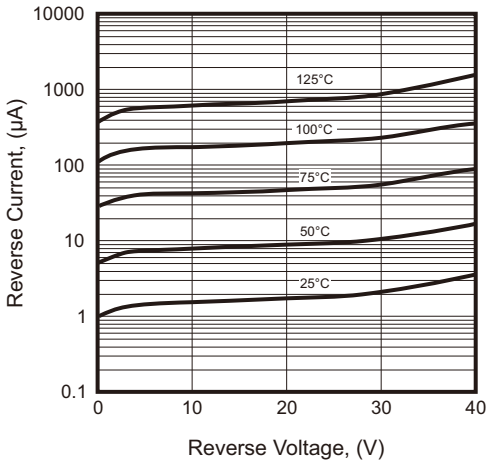


Fig.3 - Capacitance Between Terminals Characteristics

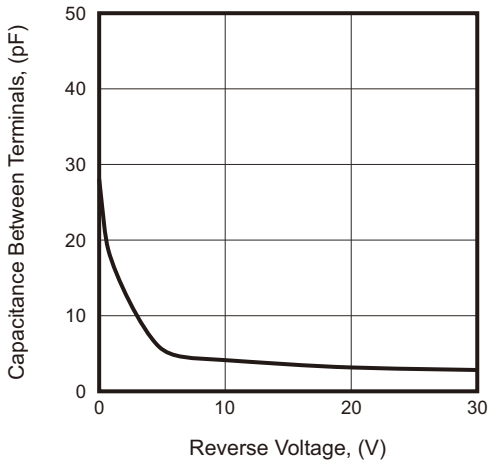
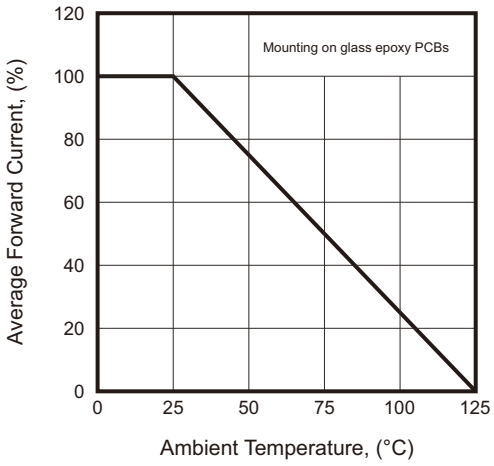
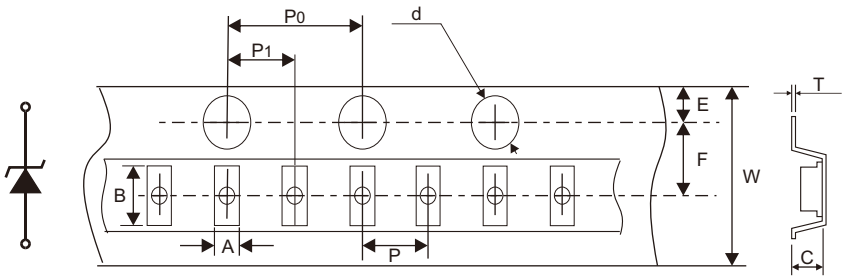


Fig.4 - Current Derating Curves

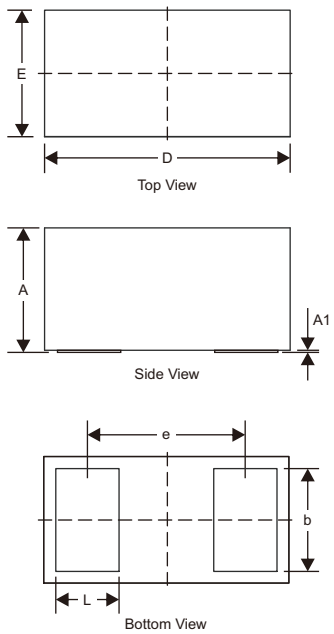


Taping Specification



SIZE	01005
	(mm)
A	0.27±0.02
B	0.49±0.02
C	0.215±0.02
P	2.00±0.05
P0	4.00±0.10
P1	2.00±0.05
d	1.50+0.10
E	1.75±0.10
F	3.50±0.05
W	8.00+0.30/−0.10
T	0.20±0.05

Package Dimensions

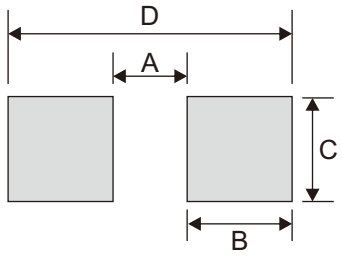


WL, 0.42x0.22, 0.28P

Case 01005A

Symbol	Millimeters		
	Min	Nom	Max
A	0.15	0.17	0.20
A1	-	-	0.01
b	0.14	0.16	0.18
D	0.40	0.42	0.44
E	0.20	0.22	0.24
e	-	0.28	-
L	0.06	0.08	0.10

Suggested P.C.B. PAD Layout



Size	01005	
	(mm)	(inch)
A	0.12	0.005
B	0.17	0.007
C	0.17	0.007
D	0.46	0.018