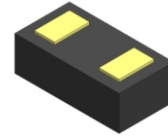


## CDBWL0530R-HF

### Ultra small SMD package

**$I_F = 500\text{ mA}$**   
 **$V_R = 30\text{ V}$**   
**RoHS Device**  
**Halogen Free**

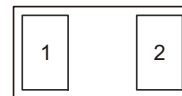


Case 01005A

### Features

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

#### Outline



#### Circuit Diagram



### Mechanical data

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

Part number	Package	Reel	Reel size	Marking code
CDBWL0530R-HF	01005A	10,000	7 inch	IO

### Maximum Rating (at $T_A=25^\circ\text{C}$ unless otherwise noted)

Parameter	Conditions	Symbol	Value	Unit
Forward current		$I_F$	500	mA
Reverse voltage		$V_R$	30	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	$^\circ\text{C}$
Storage temperature range		$T_{STG}$	-55 to +150	$^\circ\text{C}$

### Electrical Characteristics (at $T_A=25^\circ\text{C}$ unless otherwise noted)

Parameter	Conditions	Symbol	Min	Typ	Max	Unit
Forward voltage	$I_F = 10\text{mA}$ $I_F = 100\text{mA}$ $I_F = 500\text{mA}$	$V_F$		260 385 -	300 460 800	mV
Reverse current	$V_R = 10\text{V}$ $V_R = 30\text{V}$	$I_R$		1.5 2.0	7 20	$\mu\text{A}$
Junction capacitance	$V_R = 0\text{V}, f = 1\text{MHz}$ $V_R = 5\text{V}, f = 1\text{MHz}$	$C_J$		28 6		pF

## Typical Rating and Characteristic Curves (CDBWL0530R-HF)

Fig.1 - Forward Characteristics

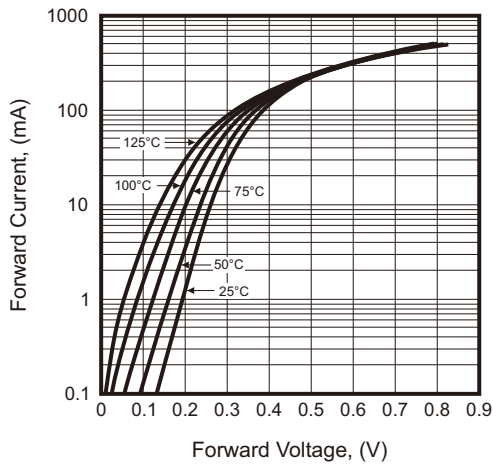


Fig.2 - Reverse Characteristics

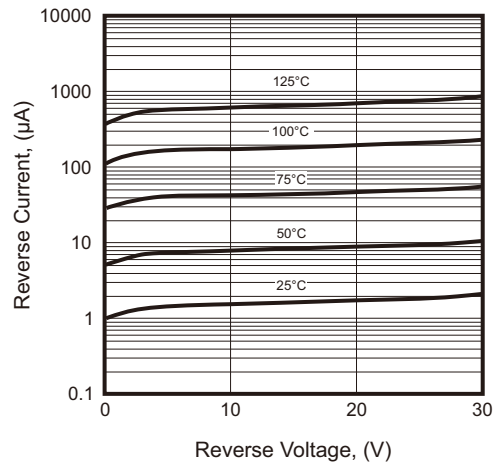


Fig.3 - Capacitance Between Terminals Characteristics

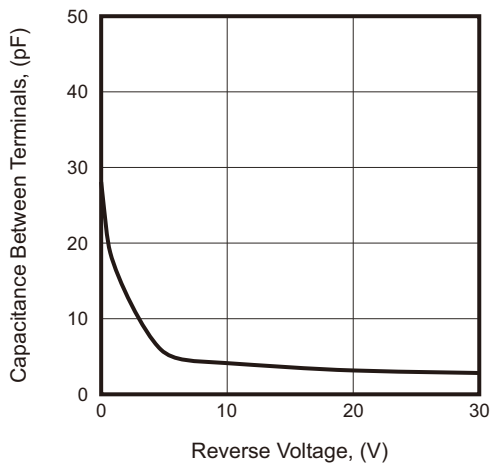
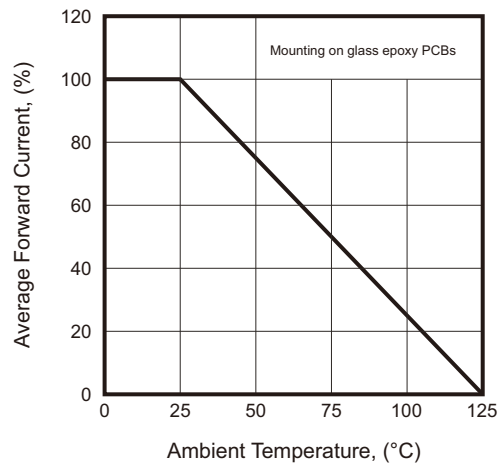
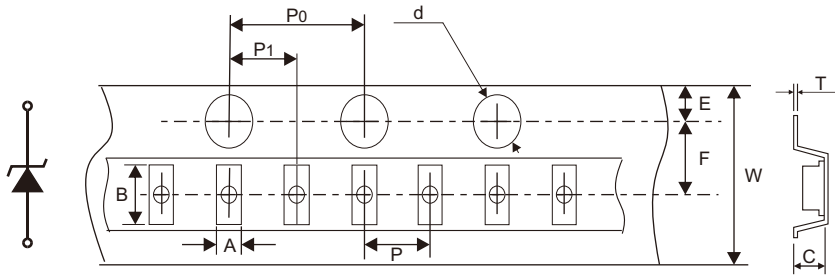


Fig.4 - Current Derating Curves



## Taping Specification

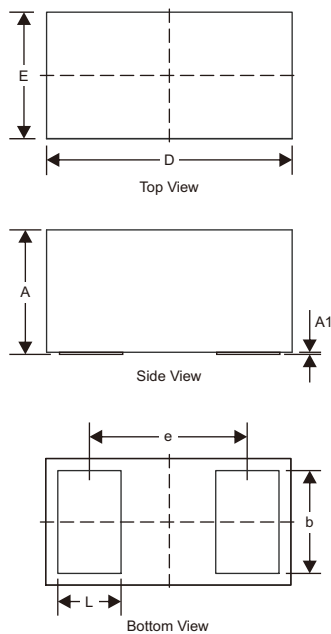


SIZE	01005	
	(mm)	
A	0.27±0.02	
B	0.49±0.02	
C	0.215±0.02	
P	2.00±0.05	
P0	4.00±0.10	
P1	2.00±0.05	
d	1.50±0.10	
E	1.75±0.10	
F	3.50±0.05	
W	8.00+0.30/-0.10	
T	0.20±0.05	

## Package Dimensions

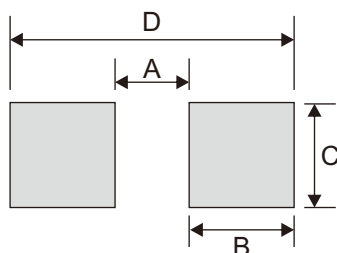
WL, 0.42x0.22, 0.28P

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