

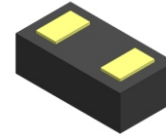
CDBWL0530R-HF

Ultra small SMD package

$I_o = 500 \text{ mA}$

$V_R = 30 \text{ V}$

RoHS Device
Halogen Free



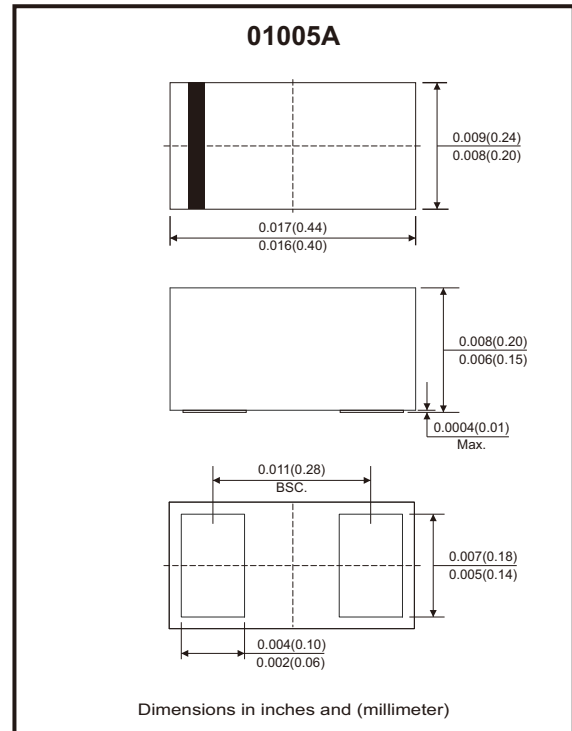
Features

- Low reverse current.
- 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.

Circuit Diagram



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

Parameter	Conditions	Symbol	Value	Unit
Repetitive peak reverse voltage		V_{RRM}	30	V
Reverse voltage		V_R	30	V
Forward current		I_o	500	mA
Peak forward surge current	8.3ms single half sine-wave superimposed on rated load (JEDEC method)	I_{FSM}	2	A
ESD rating	Human body model Machine model	ESD	4 800	kV V
Operating 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	$I_F = 10\text{mA}$	V_F		260	300	mV
	$I_F = 100\text{mA}$	V_F		385	460	
	$I_F = 500\text{mA}$	V_F			800	
Reverse current	$V_R = 10\text{V}$	I_R		1.5	7	μA
	$V_R = 30\text{V}$	I_R		2.0	20	
Junction capacitance	$V_R = 0\text{V}, f = 1\text{MHz}$	C_J		28		pF
	$V_R = 5\text{V}, f = 1\text{MHz}$	C_J		6		

Typical Rating and Characteristic Curves (CDBWL0530R-HF)

Fig.1 - Forward Characteristics

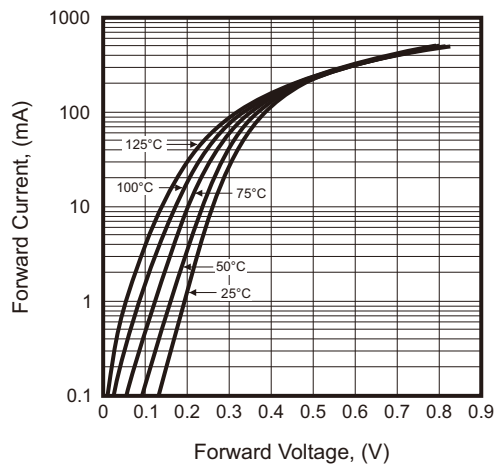


Fig.2 - Reverse Characteristics

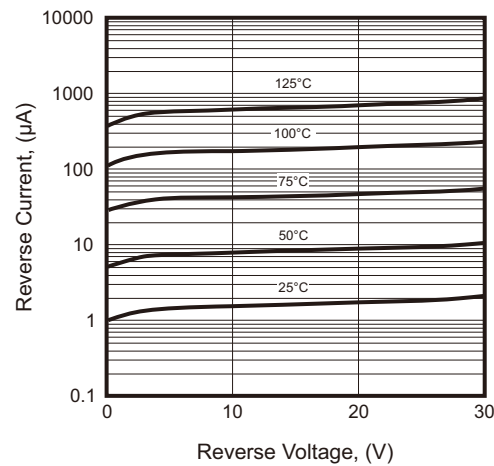


Fig.3 - Capacitance Between Terminals Characteristics

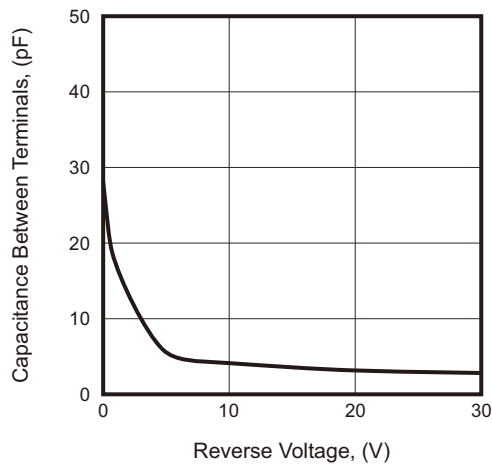
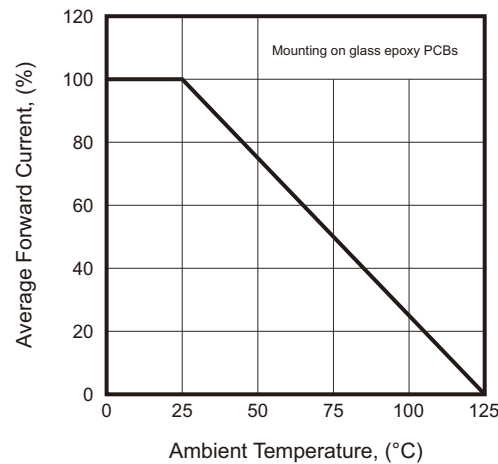
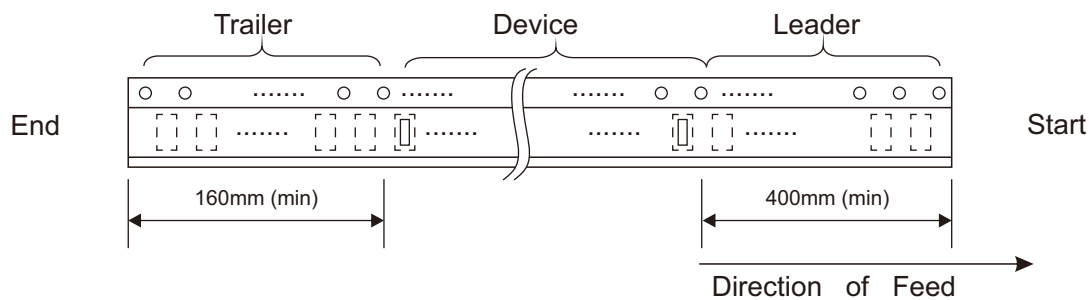
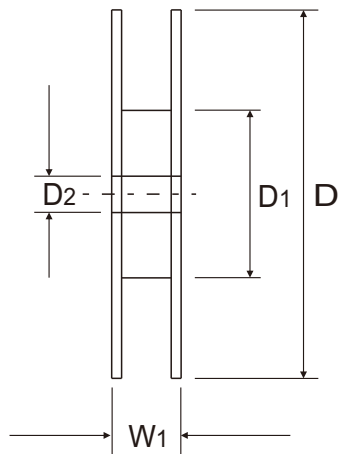
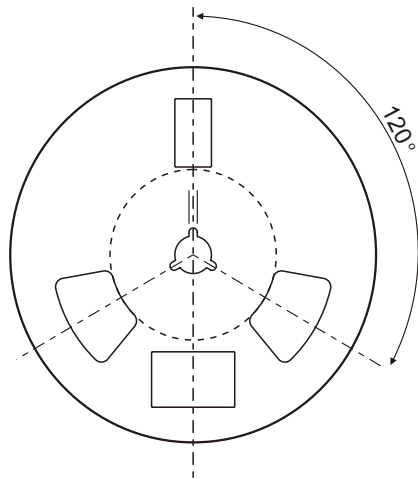
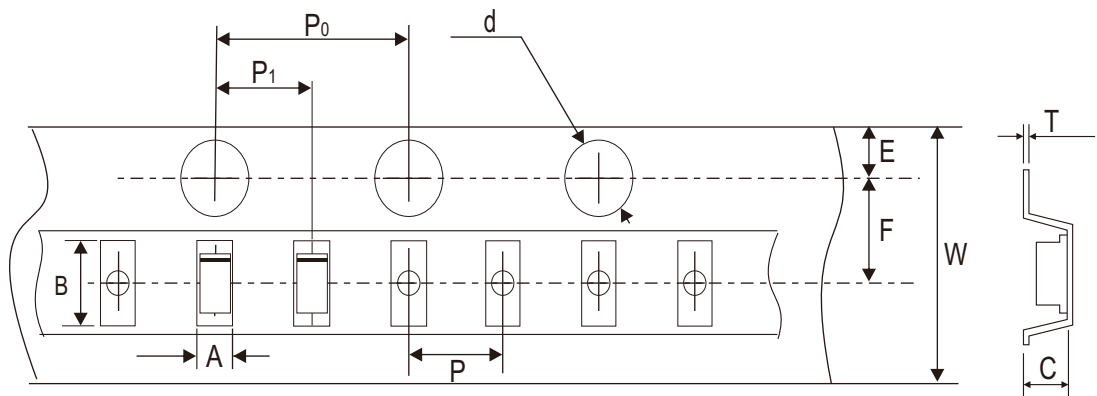


Fig.4 - Current Derating Curves



Reel Taping Specification



01005	SYMBOL	A	B	C	d	D	D1	D2
	(mm)	0.27 ± 0.02	0.49 ± 0.02	0.215 ± 0.02	$1.50^{+0.10}_{-0.00}$	178.00 ± 1.00	60.00 ± 0.50	13.00 ± 0.50
	(inch)	0.011 ± 0.001	0.019 ± 0.001	0.008 ± 0.001	$0.059^{+0.004}_{-0.000}$	7.008 ± 0.039	2.362 ± 0.020	0.512 ± 0.020

01005	SYMBOL	E	F	P	P0	P1	T	W	W1
	(mm)	1.75 ± 0.10	3.50 ± 0.05	2.00 ± 0.05	4.00 ± 0.10	2.00 ± 0.05	0.20 ± 0.05	$8.00^{+0.30}_{-0.10}$	11.50 ± 0.50
	(inch)	0.069 ± 0.004	0.138 ± 0.002	0.079 ± 0.002	0.157 ± 0.004	0.079 ± 0.002	0.008 ± 0.002	$0.315^{+0.012}_{-0.004}$	0.453 ± 0.020

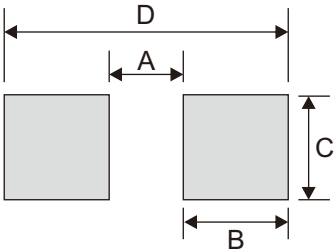
Marking Code

Part Number	Marking Code
CDBWL0530R-HF	O



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



Standard Packaging

Case Type	REEL PACK	
	REEL (pcs)	Reel Size (inch)
01005	10,000	7