



**THE DATASHEET OF
CDBVRL140-HF**



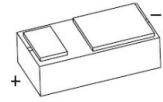
CDBVRL140-HF

Forward current: 1.0 A

Reverse voltage: 40 V

RoHS Device

Halogen Free



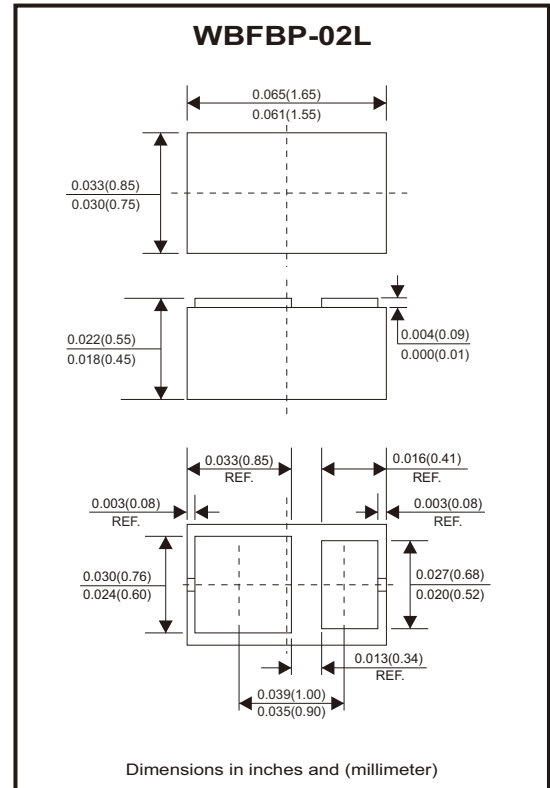
Features

- Low forward voltage drop.
- Small power mold type.
- Low IR.
- Small current rectification.

Mechanical Data

- Case: WBFBP-02L, molded plastic.

Circuit Diagram



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

Parameter	Symbol	Value	Unit
Peak repetitive reverse voltage	V_{RRM}	40	V
Working peak reverse voltage	V_{RWM}		
RMS reverse voltage	$V_{R(RMS)}$	28	V
Average rectified output current	I_o	1	A
Non-repetitive peak forward surge current @ t=8.3ms	I_{FSM}	5	A
Power dissipation	P_D	150	mW
Thermal resistance from junction to ambient	$R_{\theta JA}$	667	°C/W
Operating junction temperature range	T_J	-40 ~ +125	°C
Storage temperature range	T_{STG}	-55 ~ +150	°C

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

Parameter	Conditions	Symbol	Min.	Typ.	Max.	Unit
Reverse voltage	$I_R = 10\mu\text{A}$	$V_{(BR)}$	40			V
Reverse current	$V_R = 40\text{V}$	I_R			50	μA
Forward voltage	$I_F = 0.7\text{A}$	V_F			0.55	V
Diode capacitance	$V_R = 1\text{V}, f = 1\text{MHz}, T_J=25^\circ\text{C}$	C_d		50		pF
	$V_R = 10\text{V}, f = 1\text{MHz}, T_J=25^\circ\text{C}$			20		
Reverse recovery time	$I_F = I_R = 10\text{mA}, R_L=100\Omega,$ $I_{R(\text{meas})} = 1\text{mA}$	T_{rr}		15		ns

Rating and Characteristic Curves (CDBVRL140-HF)

Fig.1 - Forward Characteristics

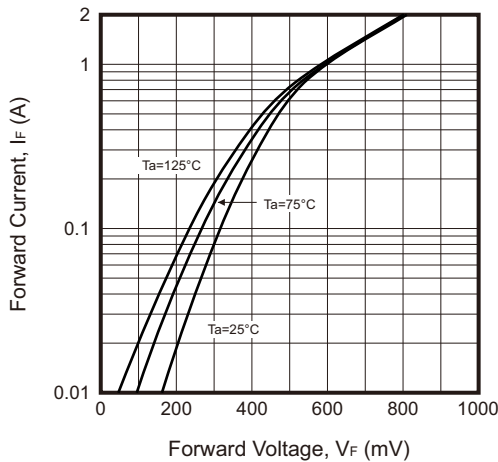


Fig.2 - Reverse Characteristics

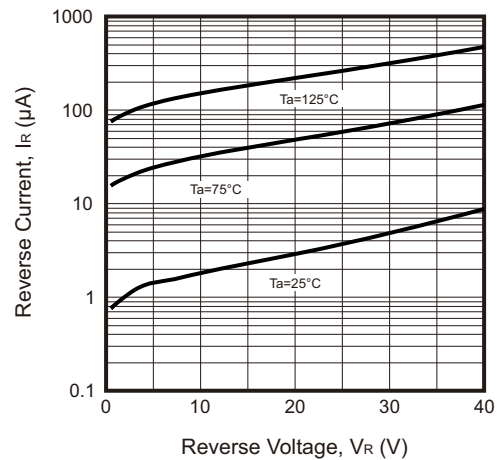


Fig.3 - Capacitance Characteristic

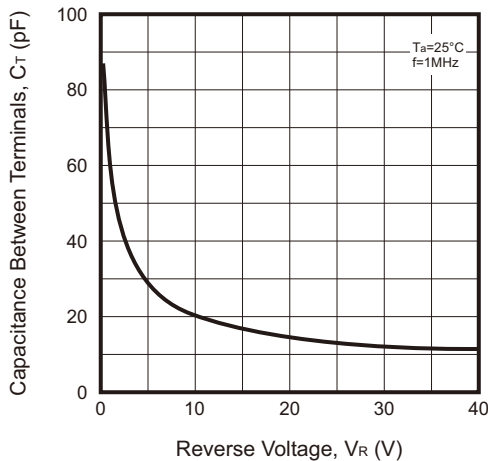
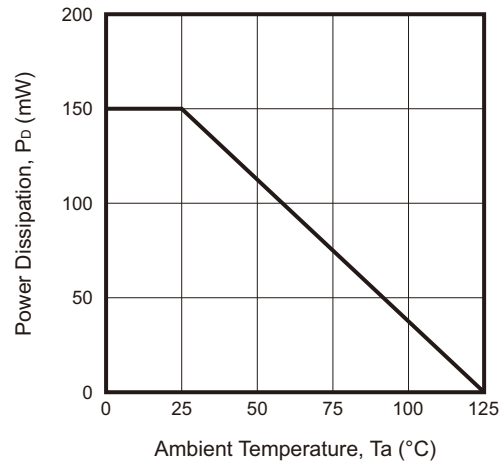


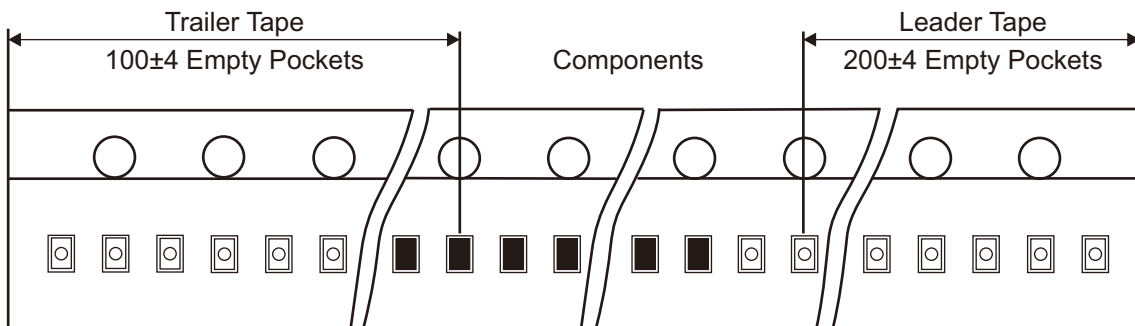
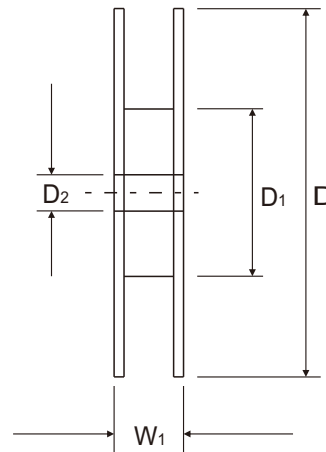
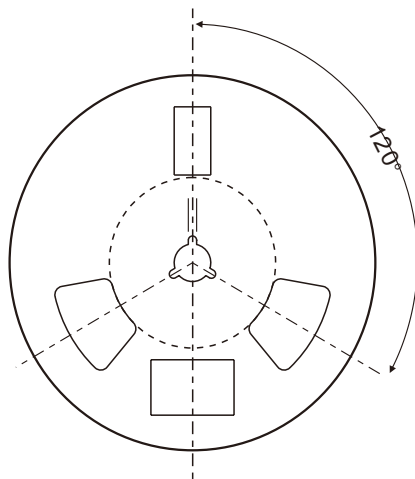
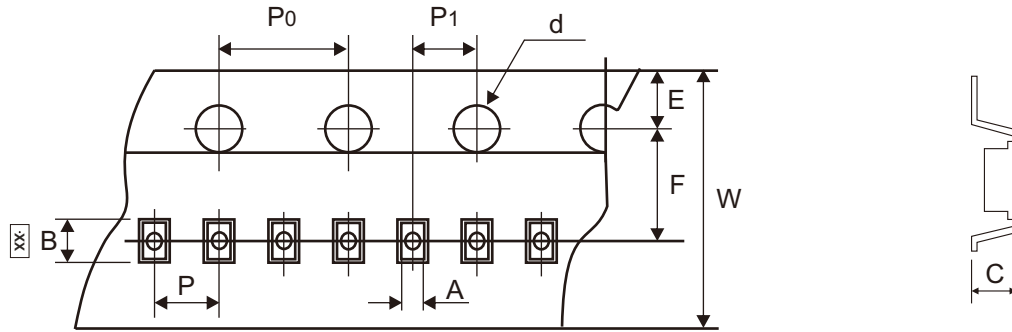
Fig.4 - Power Derating Curve



Company reserves the right to improve product design, functions and reliability without notice.

REV:A

Reel Taping Specification



WBFBP-02L	SYMBOL	A	B	C	d	D	D1	D2
	(mm)	0.90 Typ	1.75 Typ	0.66 Typ	1.50 Typ	178.00 Typ	54.40 Typ	13.00 Typ
	(inch)	0.035 Typ	0.069 Typ	0.026 Typ	0.059 Typ	7.008 Typ	2.142 Typ	0.512 Typ

WBFBP-02L	SYMBOL	E	F	P	P0	P1	W	W1
	(mm)	1.75 Typ	3.50 Typ	2.00 Typ	4.00 Typ	2.00 Typ	8.00 Typ	12.30 Typ
	(inch)	0.069 Typ	0.138 Typ	0.079 Typ	0.157 Typ	0.079 Typ	0.315 Typ	0.484 Typ

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REV:A

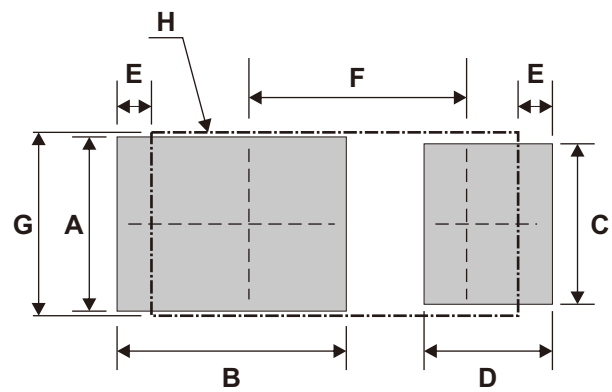
Marking Code

Part Number	Marking Code
CDBVRL140-HF	·AD



Suggested PAD Layout

SIZE	WBFBP-02L	
	(mm)	(inch)
A	0.76	0.030
B	1.00	0.039
C	0.70	0.028
D	0.56	0.022
E	0.15	0.006
F	0.95	0.037
G	0.80	0.031
H	1.60 x 0.80 PKG.	



Note: 1. The pad layout is for reference purpose only.

Standard Packaging

Case Type	REEL PACK	
	REEL (pcs)	Reel Size (inch)
WBFBP-02L	10,000	7

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