

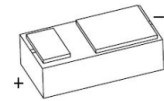
CDBVRL140-HF

Forward current: 1.0 A

Reverse voltage: 40 V

RoHS Device

Halogen Free



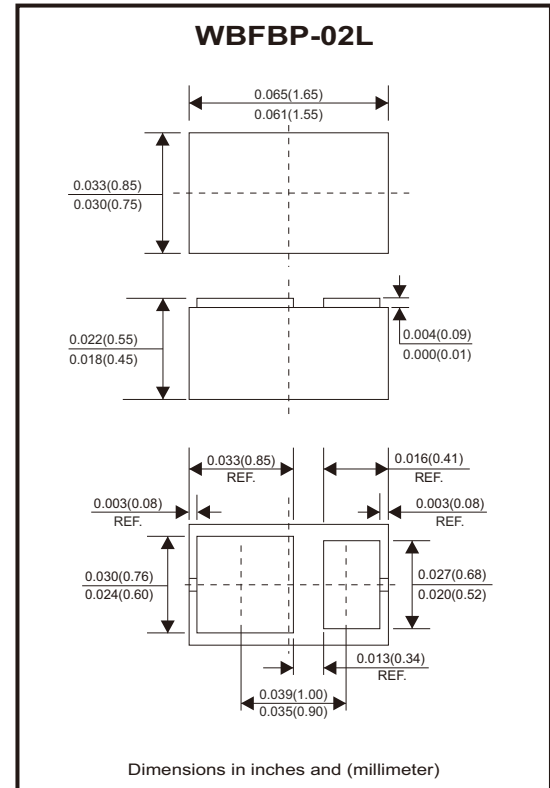
Features

- 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 $T_A=25^\circ\text{C}$ 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 @ $t=8.3\text{ms}$	I_{FSM}	5	A
Power dissipation	P_D	150	mW
Thermal resistance from junction to ambient	$R_{\theta JA}$	667	$^\circ\text{C/W}$
Junction temperature range	T_J	125	$^\circ\text{C}$
Storage temperature range	T_{STG}	-55 ~ +150	$^\circ\text{C}$

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		pF

Rating and Characteristic Curves (CDBVRL140-HF)

Fig.1 - Forward Characteristics

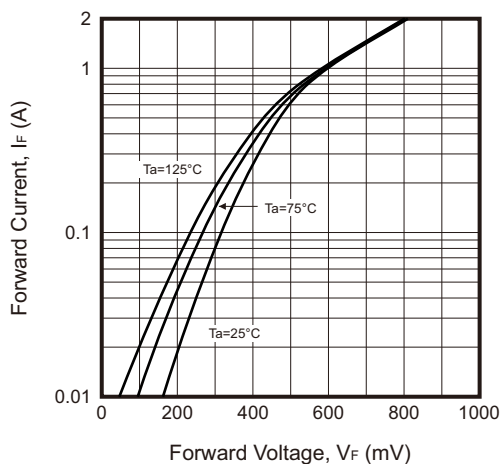


Fig.2 - Reverse Characteristics

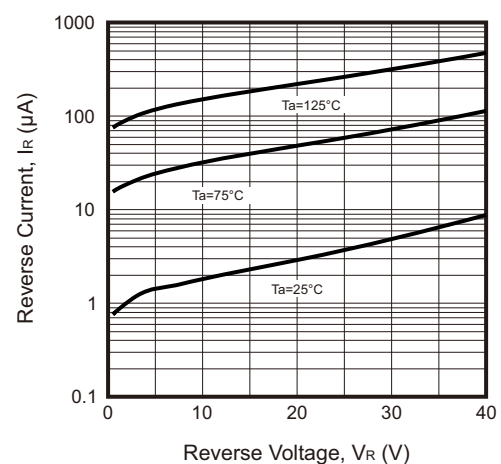


Fig.3 - Capacitance Characteristic

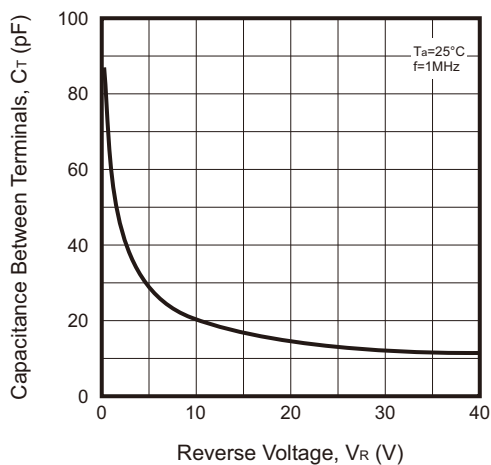
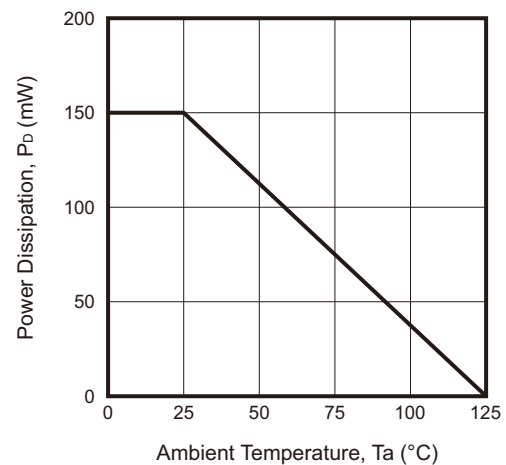
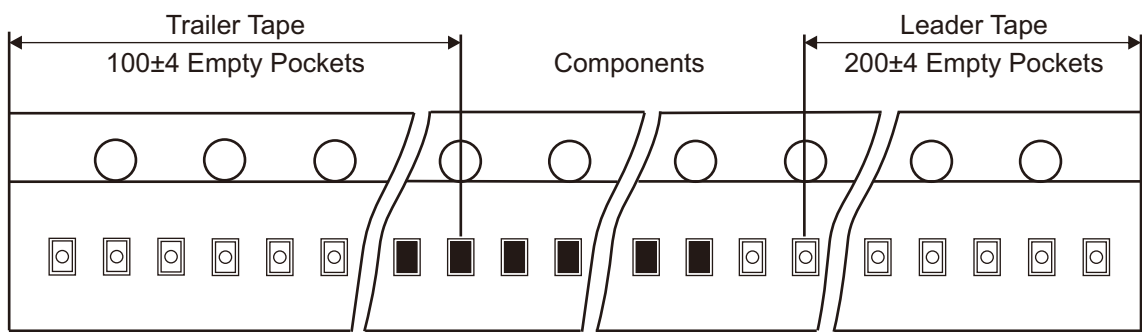
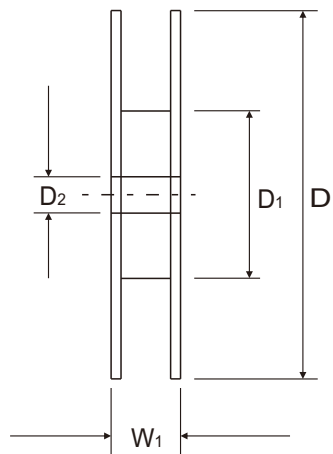
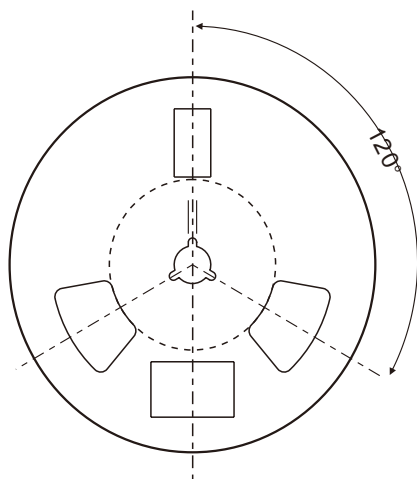
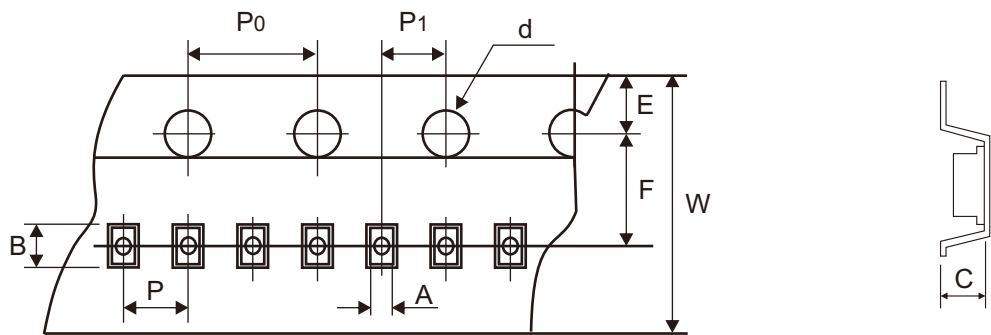


Fig.4 - Power Derating Curve



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	0.138Typ	0.079 Typ	0.157 Typ	0.079 Typ	0.315 Typ	0.484 Typ

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

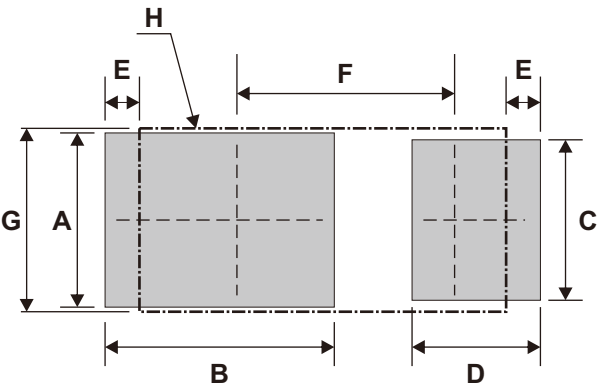
Marking Code

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