



WBFBP-03B Plastic-Encapsulate DIODE

MMBD4148M

SWITCHING DIODE

DESCRIPTION

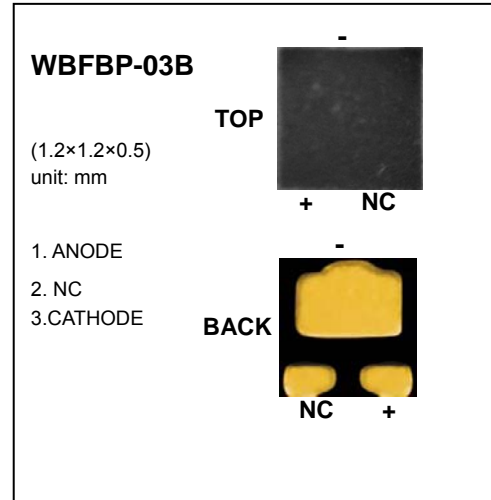
Epitaxial planar Silicon diode

FEATURES

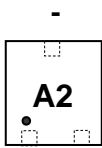
- Fast Switching Speed
- Ultra-Small Surface Mount Package
- For General Purpose Switching Applications
- High Conductance
- Lead Free Product

APPLICATION

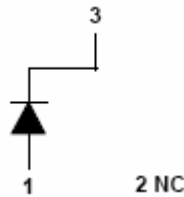
High Conductance Ultra Fast Diode
 For portable equipment:(i.e. Mobile phone,MP3, MD,CD-ROM, DVD-ROM, Note book PC, etc.)



MARKING: A2



+ NC



Maximum Ratings and Electrical Characteristics, Single Diode @T_A=25°C

Parameter	Symbol	Limite	Unit
Non-Repetitive Peak reverse voltage	V _{RM}	100	V
Peak Repetitive Peak reverse Voltage	V _{RPM}	75	V
Working Peak Reverse Voltage	V _{RWM}		
DC Blocking Voltage	V _R	53	V
RMS Reverse Voltage	V _{R(RMS)}		
Forward Continuous Current	I _{FM}	300	mA
Average Rectified Output Current	I _O	150	mA
Peak forward surge current @=1.0μs	I _{FSM}	2.0	A
@=1.0s		1.0	
Power Dissipation	P _D	150	mW
Thermal Resistance Junction to Ambient	R _{θJA}	625	°C/W
Junction temperature	T _J	125	°C
Storage temperature	T _{STG}	-65~+150	°C

Electrical Ratings @ $T_A=25^\circ\text{C}$

Parameter	Symbol	Min.	Typ.	Max.	Unit.	Conditions
Forward voltage	V_{F1}			0.715	V	$I_F=1\text{mA}$
	V_{F2}			0.855	V	$I_F=10\text{mA}$
	V_{F3}			1.0	V	$I_F=50\text{mA}$
	V_{F4}			1.25	V	$I_F=150\text{mA}$
Reverse current	I_{R1}			1	μA	$V_R=75\text{V}$
	I_{R2}			25	nA	$V_R=20\text{V}$
Capacitance between terminals	C_T			2	pF	$V_R=0\text{V}, f=1\text{MHz}$
Reverse Recovery Time	t_{rr}			4	ns	$I_F=I_R=10\text{mA}$ $I_{rr}=0.1 \times I_R, R_L=100\Omega$

Typical Characteristics

MMBD4148M

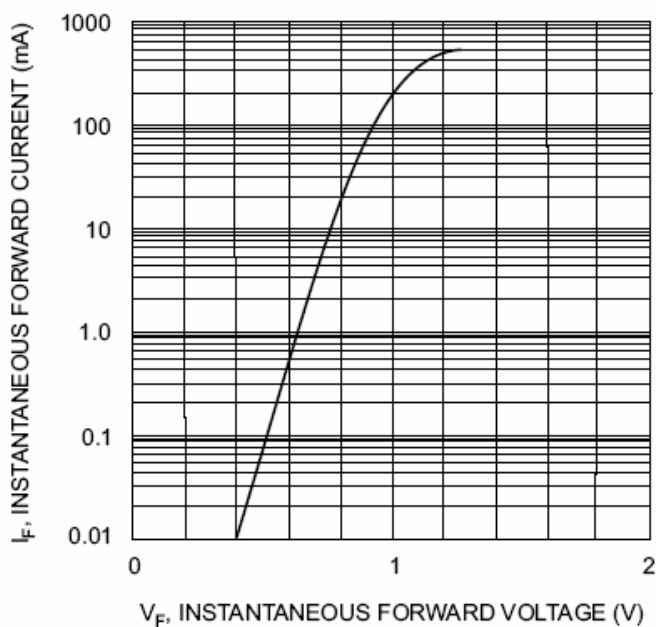


Fig. 1 Forward Characteristics

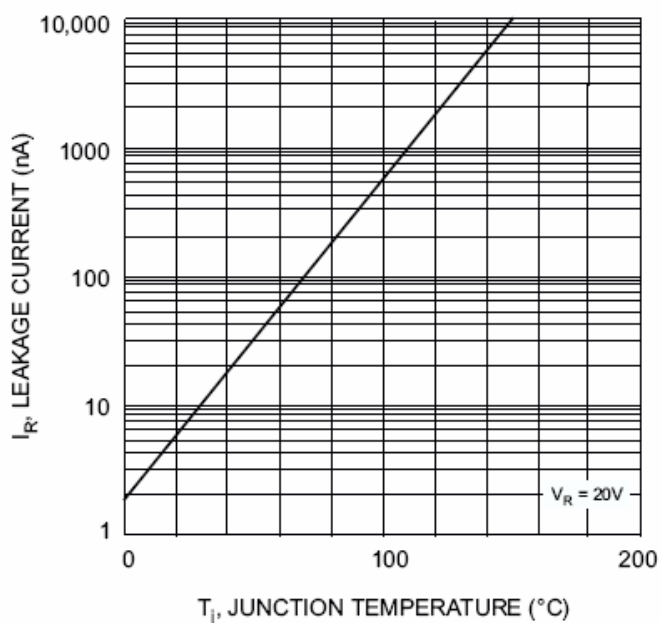
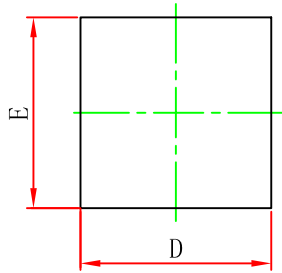
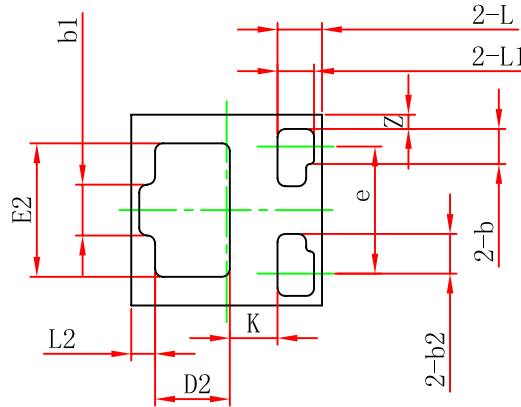


Fig. 2 Leakage Current vs Junction Temperature

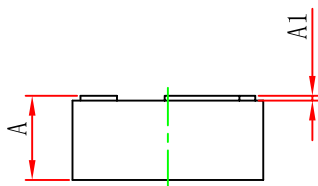
WBFBP-03B(1.2×1.2×0.5) PACKAGE OUTLINE DIMENSIONS



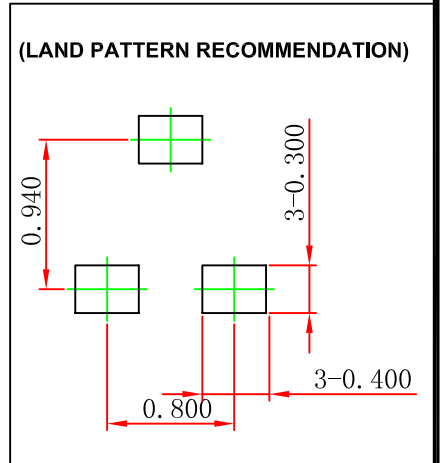
TOP VIEW



BOTTOM VIEW



SIDE VIEW



Symbol	Dimensions In Millimeters		Dimensions In Inches	
	Min.	Max.	Min.	Max.
A	0.450	0.550	0.018	0.022
A1	0.010	0.090	0.000	0.004
b	0.170	0.270	0.007	0.011
b1	0.270	0.370	0.011	0.015
b2	0.250 REF.		0.010 REF.	
D	1.150	1.250	0.045	0.049
E	1.150	1.250	0.045	0.049
D2	0.470 REF.		0.002 REF.	
E2	0.810 REF.		0.032 REF.	
e	0.800 TYP.		0.032 TYP.	
L	0.280 REF.		0.011 REF.	
L1	0.230 REF.		0.009 REF.	
L2	0.150 REF.		0.006 REF.	
k	0.300 REF.		0.012 REF.	
z	0.090 REF.		0.004 REF.	