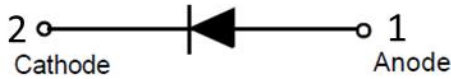
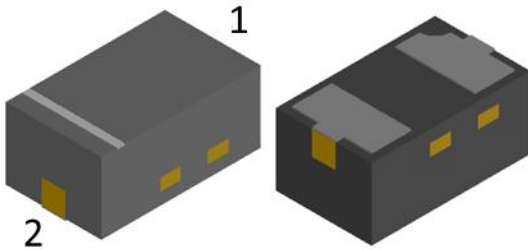


## Small Signal Schottky Diode



### Features

- Moisture sensitivity level 3
- Reverse voltage: 40V
- Average forward current: 1A

### Application

- High frequency and low voltage rectifier

### Mechanical data

- **Package:** DFN1006-2L
- **Terminals:** Tin plated leads, solderable per J-STD-002 and JESD22-B102

### ■ Maximum Ratings ( $T_a=25^\circ\text{C}$ Unless otherwise specified)

Parameter	Symbol	Unit	Value
Device marking code			R4
Repetitive peak reverse voltage	$V_{RRM}$	V	40
Forward current	$I_F$	A	1
Non-repetitive surge peak forward current @ t=8.3ms half-sine wave	$I_{FSM}$	A	3
Repetitive Peak Forward Current @ $t_p=1\text{ms}$ , $\delta=0.25$	$I_{FRM}$	A	1.5
Power dissipation	$P_D$	mW	200
Junction temperature	$T_J$	$^\circ\text{C}$	-55 to +150
Storage temperature	$T_{STG}$	$^\circ\text{C}$	-55 to +150



# MBR1040L2

**RoHS**  
COMPLIANT

## ■ Electrical Characteristics (T<sub>a</sub>=25°C Unless otherwise specified)

Parameter	Symbol	Unit	Conditions	Min	Typ	Max
Reverse voltage	V <sub>R</sub>	V	I <sub>R</sub> = 100uA	40		
Forward voltage	V <sub>F1</sub>	V	I <sub>F</sub> =0.1A			0.38
	V <sub>F2</sub>	V	I <sub>F</sub> =0.2A			0.42
	V <sub>F3</sub>	V	I <sub>F</sub> =0.5A			0.49
	V <sub>F4</sub>	V	I <sub>F</sub> =0.7A			0.55
	V <sub>F5</sub>	V	I <sub>F</sub> =1A			0.61
Reverse voltage leakage current	I <sub>R1</sub>	uA	V <sub>R</sub> =10V			30
	I <sub>R2</sub>	uA	V <sub>R</sub> =40V			40

## ■ Thermal Characteristics

Parameter	Symbol	Unit	Value
Thermal resistance, junction-to-ambient	R <sub>θJ-A</sub> <sup>(1)</sup>	°C/W	625
Thermal resistance, junction-to-case	R <sub>θJ-C</sub> <sup>(1)</sup>	°C/W	500

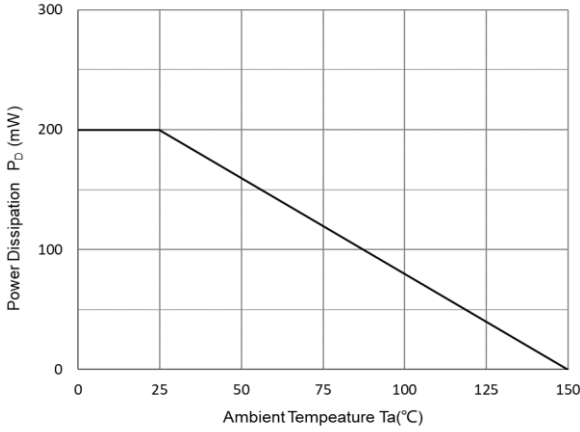
Note:

(1) Thermal resistance from junction to ambient and from junction to case mounted on P.C.B. with 17mm\*10mm copper pad areas

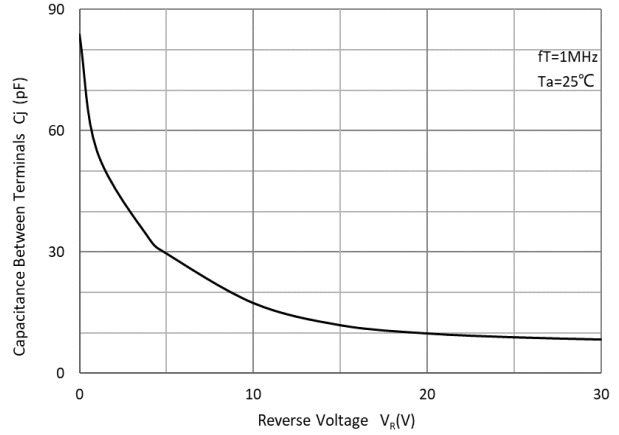


■ **Characteristics**

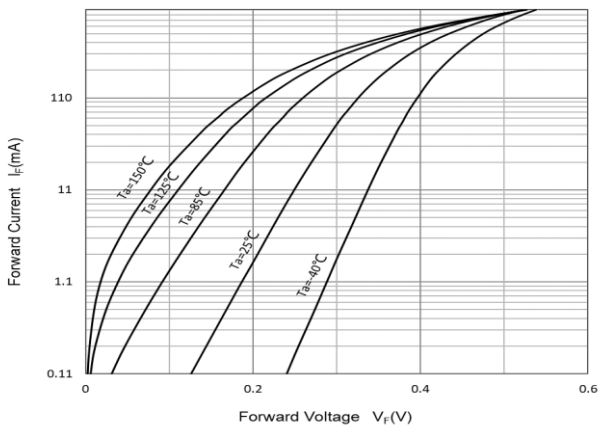
**Fig 1: P<sub>D</sub>-T<sub>a</sub> Curve**



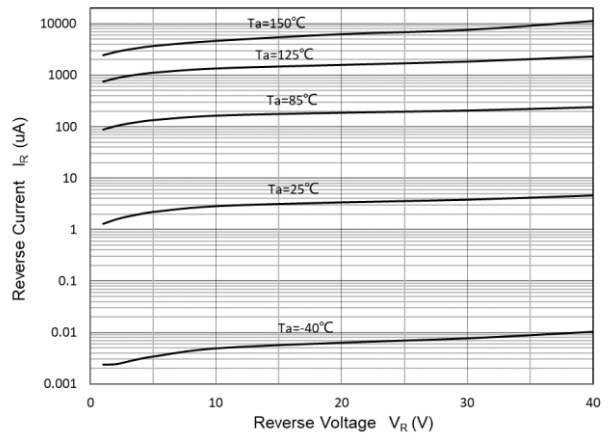
**Fig 2: Capacitance Capability**



**Fig 3: Typical Forward Characteristics**



**Fig 4: Typical Reverse Characteristics**

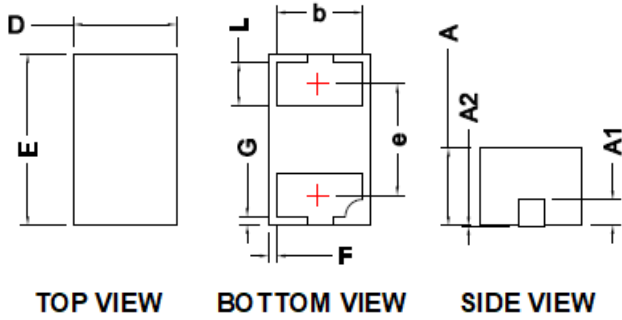


■ **Ordering Information**

Preferred P/N	Packing code	Unit weight(mg)	Minimum package(pcs)	Inner box quantity(pcs)	Outer carton quantity(pcs)	Delivery mode
MBR1040L2	F1	Approximate 0.9	10000	100000	400000	Tape & Reel

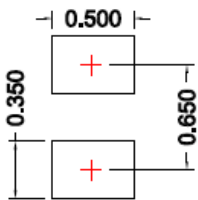


## ■ Outline Dimensions



SYMBOL	MILLIMETER		
	MIN	NOM	MAX
D	0.50	0.60	0.70
E	0.90	1.00	1.10
A	0.35	0.45	0.55
A1	0.15 BSC		
A2			0.10
F	0.005		
G	0.005		
L	0.15	0.25	0.35
b	0.41	0.50	0.59
e	0.65 BSC		

## ■ Suggested Pad Layout



UNIT: mm



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