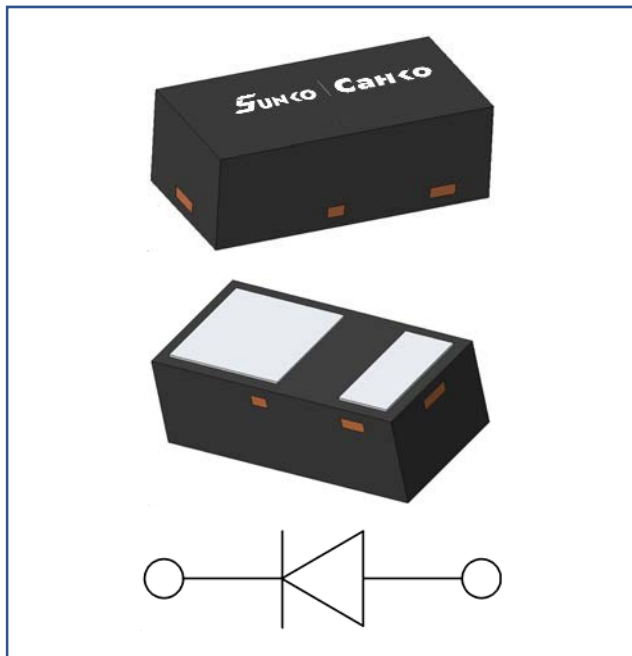


MBR1040THG

Schottky Barrier Diode



Features

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

Application

- Fast switching speed
- For general purpose switching applications

Mechanical data

- **Package:** DFN1608-2L
- **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			R
Repetitive peak reverse voltage	V_{RRM}	V	40
Forward current	I_F	A	1
Repetitive peak forward current @ $t_p \leq 1 \text{ ms}$; $\delta \leq 0.25$	I_{FRM}	A	3
Non-Repetitive Surge peak forward current @ $t=8.3\text{ms}$ half-sine wave	I_{FSM}	A	5
Power Dissipation	P_D	mW	410
Junction temperature	T_J	$^{\circ}\text{C}$	-55 to +125
Storage temperature	T_{STG}	$^{\circ}\text{C}$	-55 to +150

MBR1040THG

■ Electrical Characteristics (T_a=25°C Unless otherwise specified)

Parameter	Symbol	Unit	Conditions	Min	Typ	Max
Reverse voltage	V _R	V	I _R =10uA	40		
Forward Voltage	V _F	mV	I _F =100mA			390
			I _F =500mA			500
			I _F =700mA			550
			I _F =1A			600
Reverse Leakage Current	I _R	uA	V _R =10V			4
			V _R =40V			20
Capacitance	C	pF	V _R =1V, f=1MHz			60
			V _R =10V, f=1MHz			25
Reverse Recovery Time	T _{rr}	ns	I _F =I _R =0.5A, I _{rr} =0.1A		15	25

■ Thermal Characteristics

Parameter	Symbol	Unit	Value
Thermal resistance, junction-to-ambient	R _{θJ-A} ⁽¹⁾	°C/W	245
Thermal resistance, junction-to-case	R _{θJ-C} ⁽¹⁾	°C/W	200

Note:

(1) Device mounted on PCB, single-sided copper, with standard footprint

MBR1040THG

■ Characteristics

Fig 1: P_D -Ta Curve

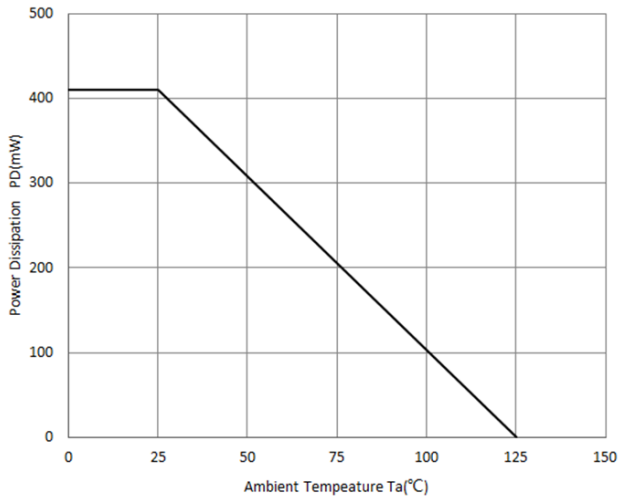


Fig 2: Capacitance Capability

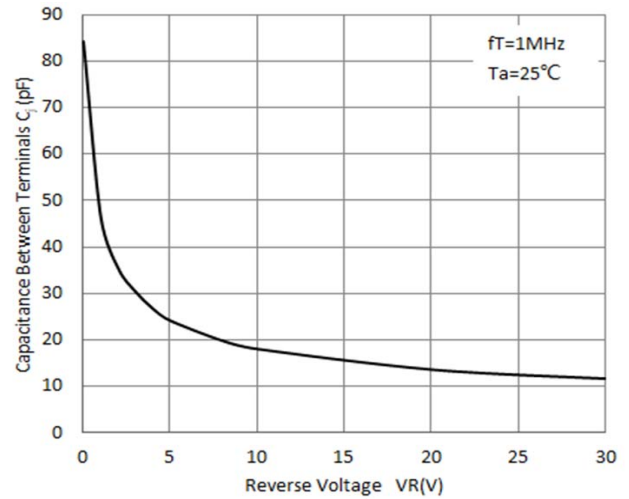


Fig 3: Typical Forward Characteristics

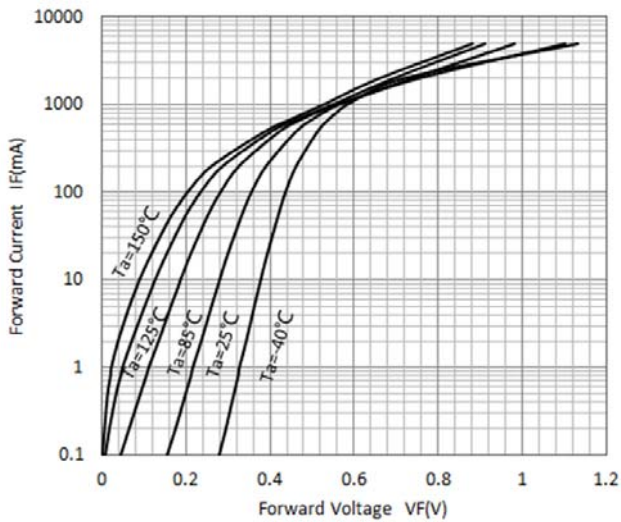
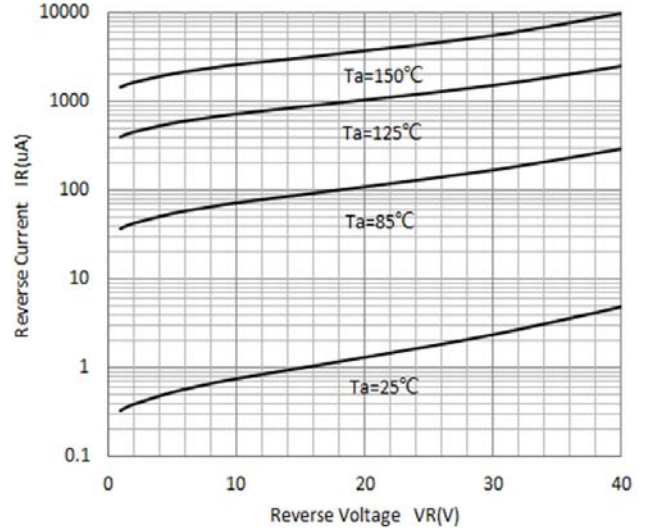


Fig 4: Typical Reverse Characteristics

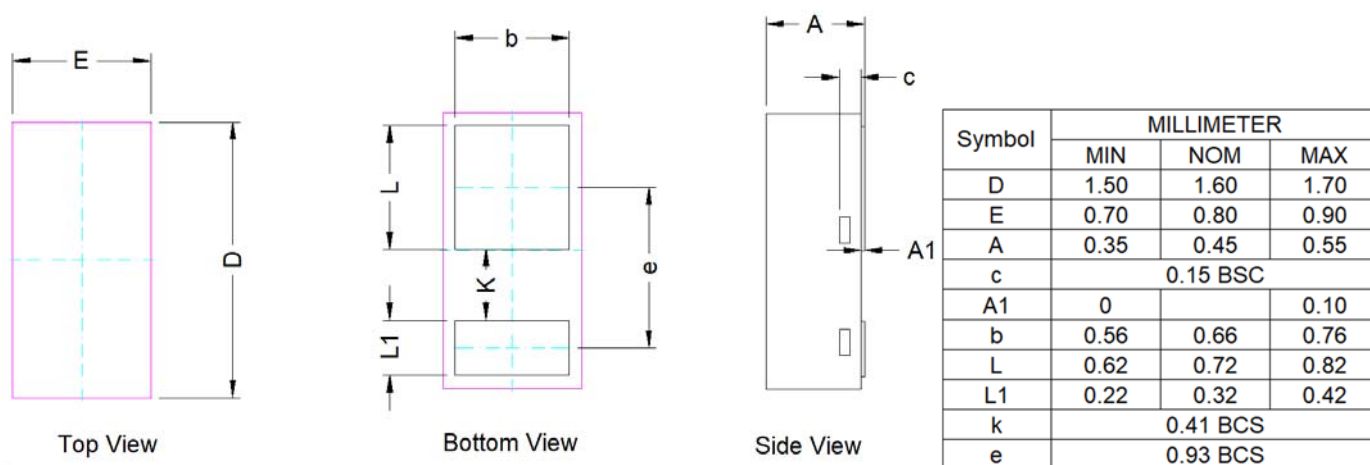


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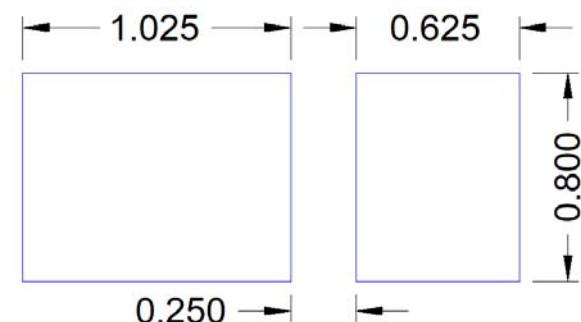
■ Ordering Information

Preferred P/N	Packing Code	Unit Weight(g)	Minimum Package(pcs)	Inner Box Quantity(pcs)	Outer Carton Quantity(pcs)	Delivery Mode
MBR1040THG	F1	Approximate 0.0026	3000	30000	120000	Tape & Reel

■ Outline Dimensions



■ Suggested Pad Layout



UNIT: mm

MBR1040THG

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