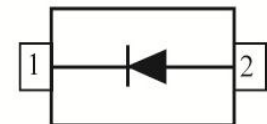


MBR4010H3 S-MBR4010H3

Schottky Barrier Rectifier

1. FEATURES

- Average forward current: $I_F(AV) \leq 1A$
- Reverse voltage: $V_R \leq 40V$
- Low forward voltage: $V_F \leq 600mV$
- Low reverse current
- We declare that the material of product compliance with RoHS requirements and Halogen Free.
- S- prefix for automotive and other applications requiring unique site and control change requirements; AEC-Q101 qualified and PPAP capable.



2. APPLICATIONS

- Low voltage rectification
- High efficiency DC-to-DC conversion
- Switch mode power supply
- LED backlight for mobile application
- Low power consumption applications
- Ultra high-speed switching
- Reverse polarity protection

3. DEVICE MARKING AND ORDERING INFORMATION

Device	Marking	Shipping
MBR4010H3	R	10000/Tape&Reel

4. MAXIMUM RATINGS($T_a = 25^\circ C$)

Parameter	Symbol	Limits	Unit
DC Reverse Voltage	V_R	40	V
Forward Current	I_F	1	A
Repetitive Peak Forward Current $t_p \leq 1ms, \delta \leq 0.25$	I_{FRM}	3	A
Non-repetitive Peak Forward Current $t_p = 8ms, T_j = 25^\circ C, \text{square wave}$	I_{FSM}	5	A

5. THERMAL CHARACTERISTICS

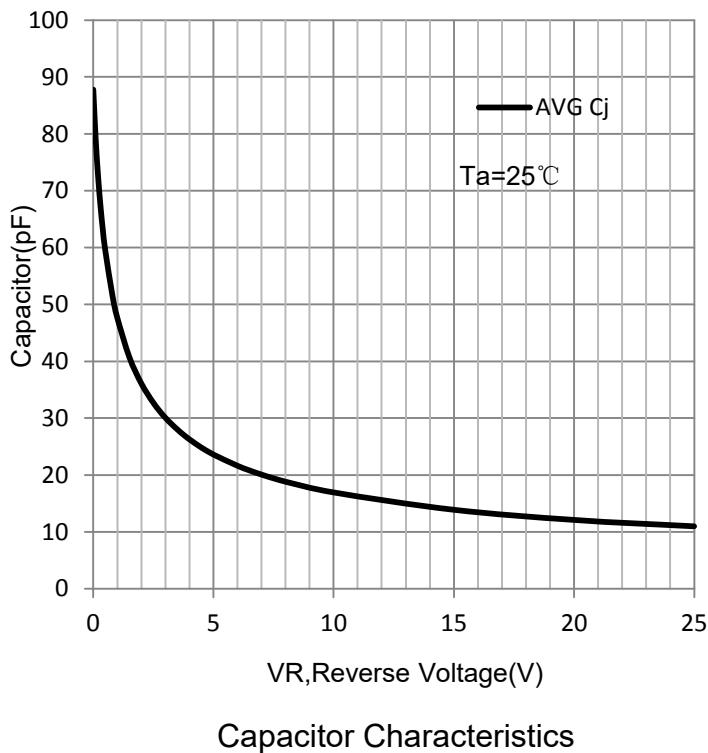
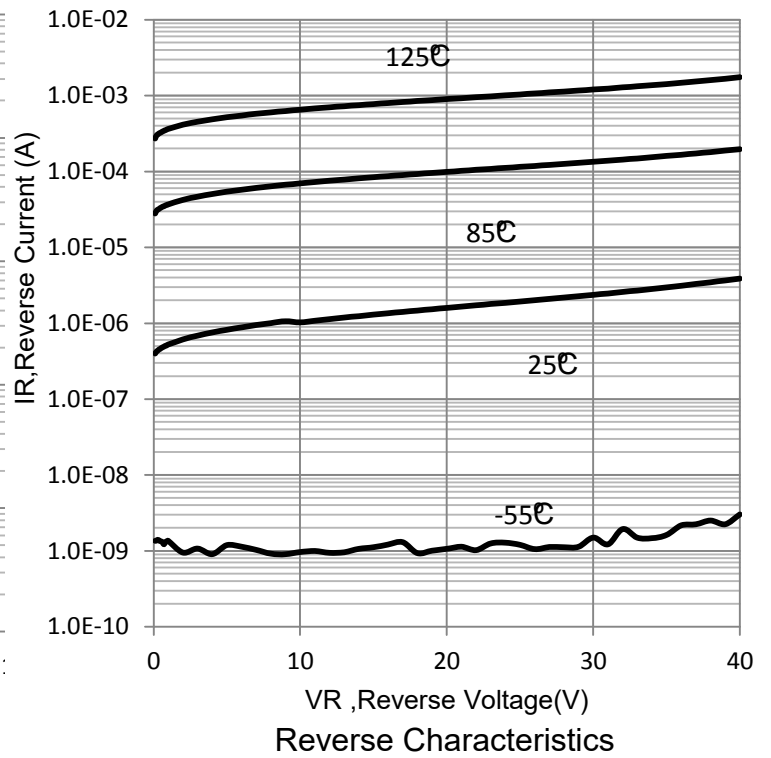
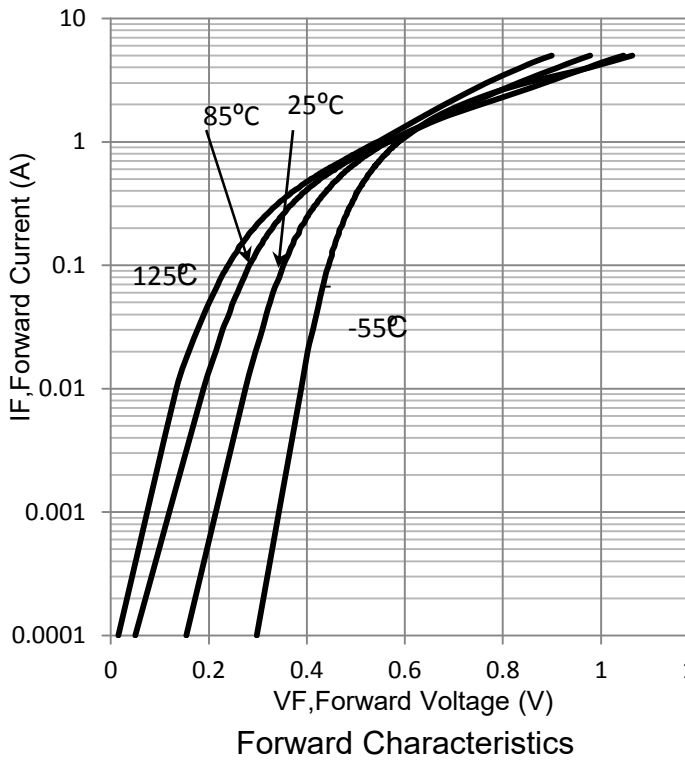
Parameter	Symbol	Limits	Unit
Total Power Dissipation	PD	410	mW
Junction Temperature	T_J	125	$^\circ C$
Storage Temperature Range	T_{stg}	-40~+150	$^\circ C$



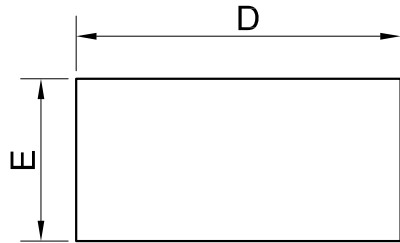
6. ELECTRICAL CHARACTERISTICS (Ta= 25°C)

Characteristic	Symbol	Min.	Typ.	Max.	Unit
Reverse Voltage Leakage Current (VR = 10V)	IR	-	0.6	4	μA
(VR = 40V)		-	3	20	
Forward Voltage (IF = 100mA)	VF	-	345	390	mV
(IF = 500mA)		-	440	500	
(IF = 700mA)		-	480	550	
(IF = 1000mA)		-	540	600	
Reverse Recovery Time (IF = IR = 0.5A, IR(MEAS) = 0.1A)	trr	-	3	-	ns
Diode Capacitance (VR = 1.0V , f = 1.0 MHz)	CD	-	50	60	pF

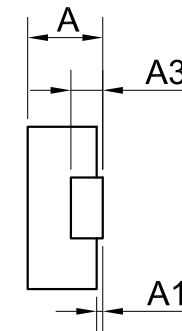


7. ELECTRICAL CHARACTERISTICS CURVES


8. OUTLINE AND DIMENSIONS

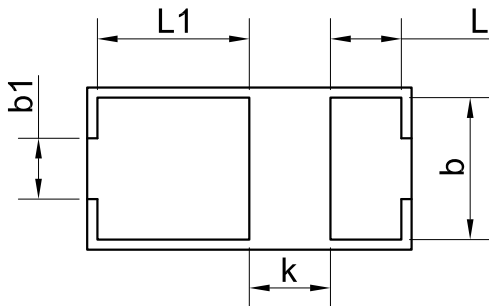


TOP VIEW



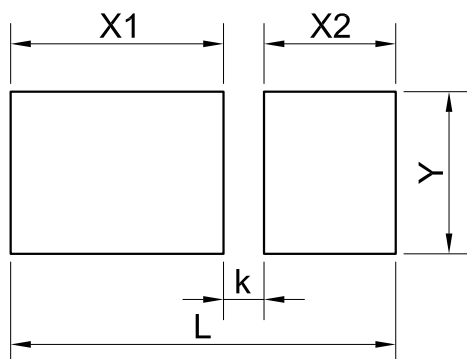
SIDE VIEW

DFN1608-2			
DIM	MIN	NOR	MAX
A	0.32	0.37	0.42
A1	0.01	0.03	0.05
b	0.65	0.70	0.75
b1	0.25	0.30	0.35
D	1.55	1.60	1.65
E	0.75	0.80	0.85
k	0.35	0.40	0.45
L	0.30	0.35	0.40
L1	0.70	0.75	0.80
A3	0.127REF.		
All Dimensions in mm			



BOTTOM VIEW

9. SOLDERING FOOTPRINT



DFN1608-2	
DIM	(mm)
X1	1.05
X2	0.65
L	1.90
Y	0.80
K	0.20

