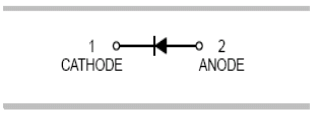
Small Signal Schottky Barrier Diode

MBR140S-T

Features

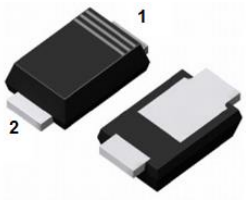
HF

- Low reverse current
- Low forward voltage
- High reliability



Application

- For general purpose applications



SOD-323-T

Mechanical Data

- Case: SOD-323-T
- Molding Compound: UL Flammability Classification Rating 94V-0
- Terminals: Matte tin-plated leads; solderability-per MIL-STD-202, Method 208

Ordering Information

Part Number	Package	Shipping Quantity	Marking Code
MBR140S-T	SOD-323-T	3000 pcs / Tape & Reel	L4FS

Maximum Ratings (@ T_A = 25℃ unless otherwise specified)

Parameter	Symbol	Value	Unit
Peak Repetitive Reverse Voltage	V_{RRM}	40	V
RMS Reverse Voltage	V_{RMS}	28	V
Maximum Average Forward Output Current	$I_{F(AV)}$	1	A
Peak Forward Surge Current (8.3ms single half sine-wave)	I_{FSM}	15	A

Thermal Characteristics

Parameter	Symbol	Value	Unit
Power Dissipation	P_D	500	mW
Thermal Resistance Junction-to-Air *1	$R_{\theta JA}$	250	°C/W
Operating junction Temperature	T_J	-55 ~ +150	°C
Storage Temperature Range	T_{STG}	-55 ~ +150	°C

Electrical Characteristics (@ T_A = 25℃ unless otherwise specified)

Parameter	Symbol	Test Condition	Min.	Typ.	Max.	Unit
Forward Voltage	V_F	I_F = 0.1A	-	-	0.40	V
		I_F = 1A	-	-	0.56	V
		I_F = 3A	-	-	0.85	V
Maximum Peak Reverse Current	I_R	V_R = 20V	-	-	0.15	mA
		V_R = 40V	-	-	0.50	mA
Typical Junction Capacitance	C_J	V_R = 4V, f = 1MHZ	-	39	50	pF

Note 1: The data tested by surface mounted on FR-4 board with recommended pad layout

Ratings and Characteristic Curves (@ T_A = 25℃ unless otherwise specified)

FIG 1.TYPICAL REVERSE CHARACTERISTIC

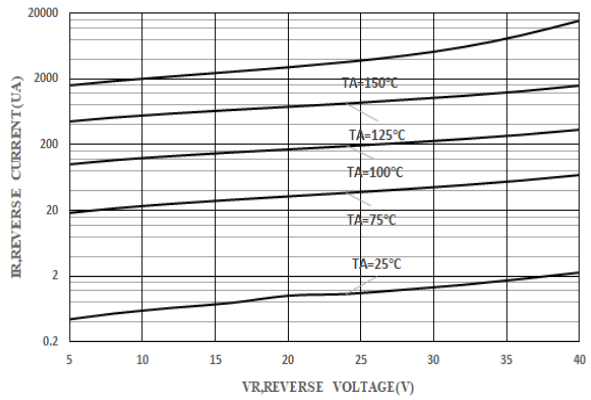


FIG 2.TYPICAL FORWARD CHARACTERISTIC

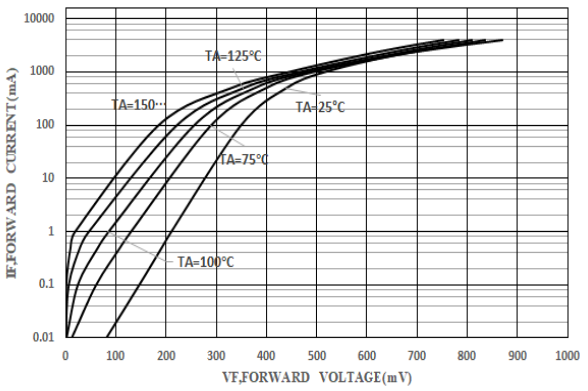
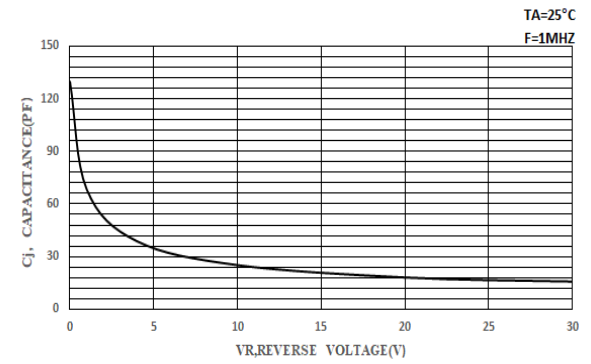
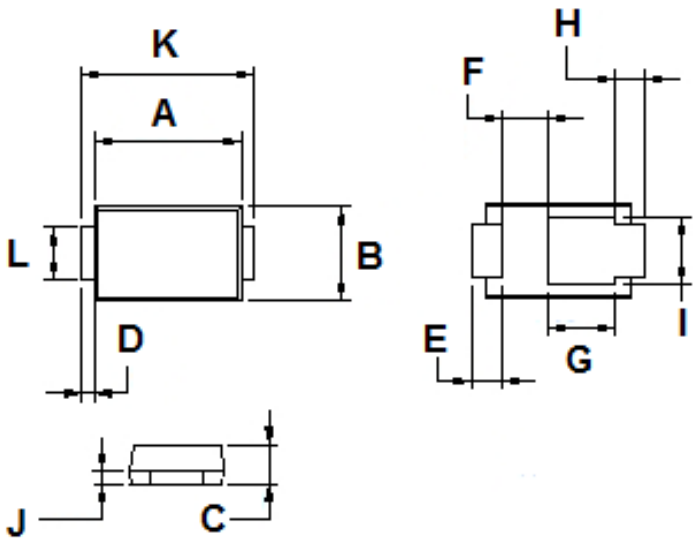


FIG 3.CAPACITANCE VS REVERSE VOLTAGE



Package Outline Dimensions (Unit: mm)



SOD-323T		
Dimension	**Min.**	**Max.**
A	2.00	2.40
B	1.20	1.60
C	0.48	0.88
D	0.10	0.30
E	0.35	0.55
F	0.60	0.80
G	0.80	1.20
H	0.35	0.55
I	0.80	1.20
J	0.10	0.30
K	2.40	2.80
L	0.70	0.90

Mounting Pad Layout (Unit: mm)

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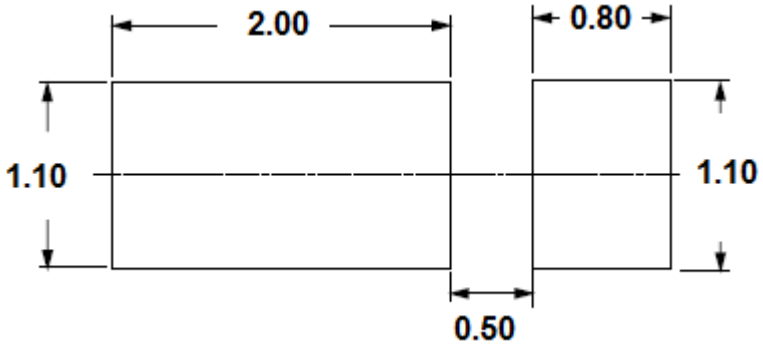

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