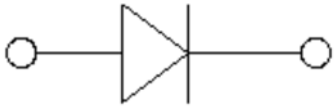
MBR0530L

Small Signal Schottky Diode



Features

- Moisture sensitivity level 1
- Reverse voltage: 30V
- Average forward current : 0.5A

Application

- High frequency and low voltage rectifier

Mechanical data

- **Package**: SOD-123
- **Terminals**: Tin plated leads, solderable per J-STD-002 and JESD22-B102

■ **Maximum Ratings** (T_a=25℃ Unless otherwise specified)

Parameter	Symbol	Unit	Value
Device marking code			SE
Repetitive peak reverse voltage	V_{RRM}	V	30
Forward current	I_F	A	0.5
Non-repetitive surge peak forward current @ t=8.3ms half-sine wave	I_{FSM}	A	5.5
Non-repetitive surge peak forward current @ t=1ms square wave		A	8.5
Power dissipation	P_D	mW	410
Junction temperature	T_J	℃	-55 to +125
Storage temperature	T_{STG}	℃	-55 to +150

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■ Electrical Characteristics (Ta=25℃ Unless otherwise specified)

Parameter	Symbol	Unit	Conditions	Min	Typ	Max
Reverse voltage	V_R	V	I_R=1mA	30		
Forward voltage	V_F	V	I_F=0.1A			0.375
			I_F=0.5A			0.43
Maximum reverse current	I_R	uA	V_R=15V			20
		uA	V_R=30V			130
Junction capacitance	Cj	pF	V_R=0V, f =1MHZ		250	

■ Thermal Characteristics

Parameter	Symbol	Unit	Value
Thermal resistance, junction-to-ambient	$R_{\theta J-A}$(1)	℃/W	244
Thermal resistance, junction-to-case	$R_{\theta J-C}$(1)	℃/W	195

Note:

（1）Thermal resistance from junction to ambient and from junction to lead mounted on P.C.B. with 8mm*9mm copper pad areas

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■Characteristics

Fig 1：PD-Ta Curve

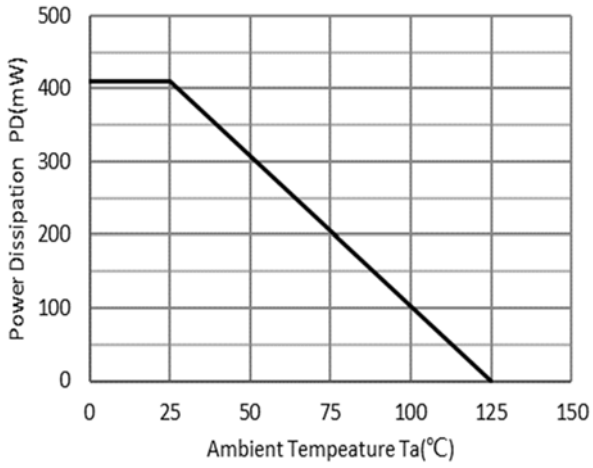


Fig 2：Capacitance Capability

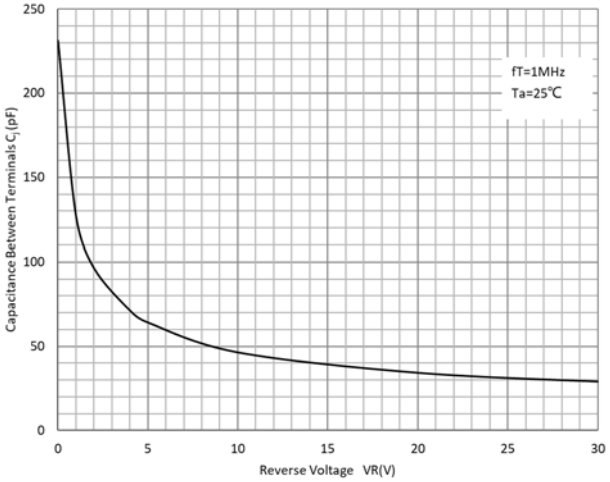


Fig 3：Typical Forward Characteristics

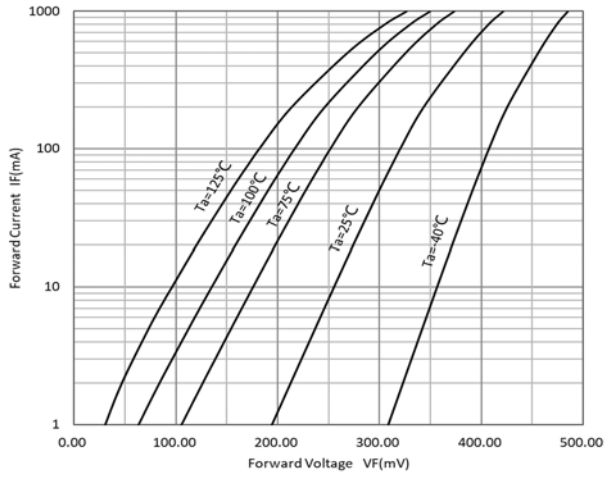
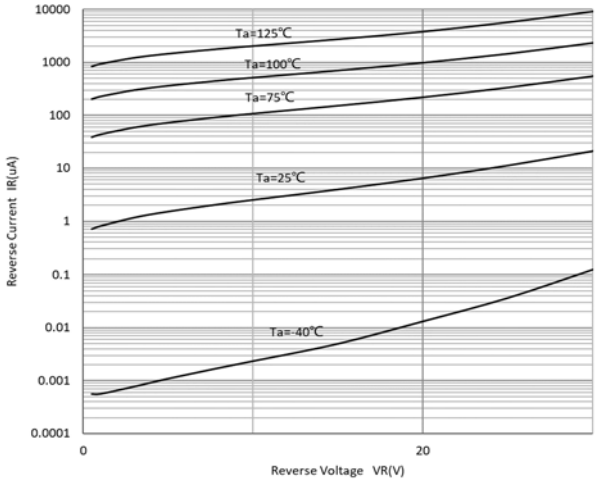


Fig 4：Typical Reverse Characteristics



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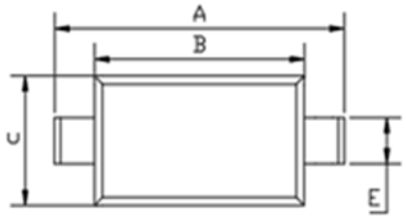
■Ordering Information

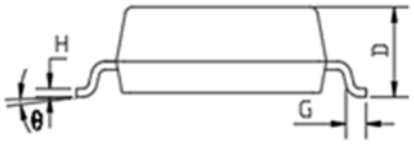
Preferred P/N	Packing code	Unit weight(g)	Minimum package(pcs)	Inner box quantity(pcs)	Outer carton quantity(pcs)	Delivery mode
MBR0530L	F2	Approximate 0.011	3000	30000	120000	7” reel
MBR0530L	F3	Approximate 0.011	10000	/	210000	13” reel

■ Outline Dimensions



TOP VIEW

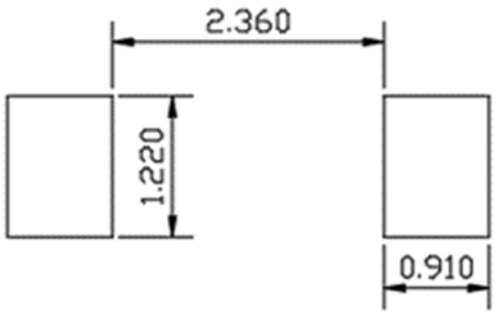
SIDE VIEW



SIDE VIEW

DIMENSIONS				
DIM	INCHES		MM	
	MIN	MAX	MN	MAX
A	0.140	0.152	3.550	3.850
B	0.100	0.112	2.550	2.850
C	0.055	0.071	1.400	1.800
D	0.037	0.053	0.950	1.350
E	0.020	0.028	0.510	0.710
G	0.006	0.018	0.150	0.450
H	0.003	0.010	0.080	0.250
J	0.000	0.006	0.000	0.150
θ	0	8°	0	8°

■ Suggested Pad Layout



UNIT: mm

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