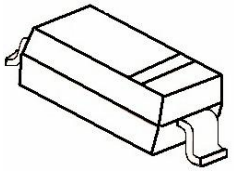
SOD-123

SOD-123 Plastic-Encapsulate Schottky Barrier Diode



Marking: MBR0520:R2
MBR0530: R3
MBR0540: R4
MBR0560: R6
MBR0580: R8

Features

- High Current Capability
- Low Forward Voltage Drop

Mechanical Data

- SOD-123 Small Outline Plastic Package
- Polarity: Color band denotes cathode end
- Epoxy UL: 94V-0
- Mounting Position: Any

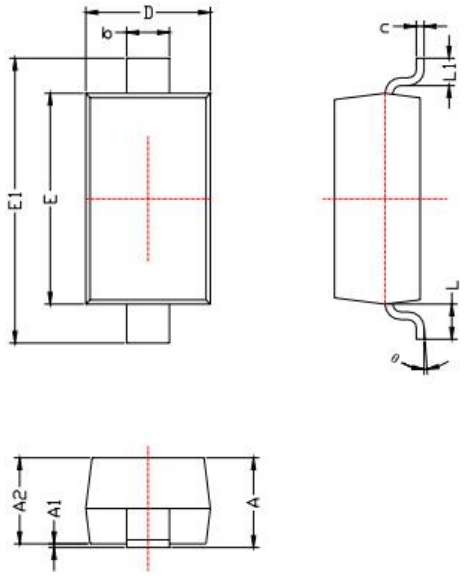
Maximum Ratings & Thermal Characteristics (Ratings at 25℃ ambient temperature unless otherwise specified.)

Parameters	Symbol	MBR 0520	MBR 0530	MBR 0540	MBR 0560	MBR 0580	Unit
Maximum repetitive peak reverse voltage	V_{RRM}	20	30	40	60	80	V
Maximum RMS voltage	V_{RMS}	14	21	28	42	56	V
Maximum DC blocking voltage	V_{DC}	20	30	40	60	80	V
Maximum average forward rectified current	I_{FM}	0.5					A
Peak forward surge current 8.3 ms single half sine-wave	I_{FSM}	5.5					A
Typical thermal resistance	$R_{\theta JA}$	244					℃/W
Power Dissipation	PD	410					mW
Junction temperature	Tj	125					℃
Storage temperature range	T_{STG}	-50-+150					℃

Electrical Characteristics (Ratings at 25℃ ambient temperature unless otherwise specified).

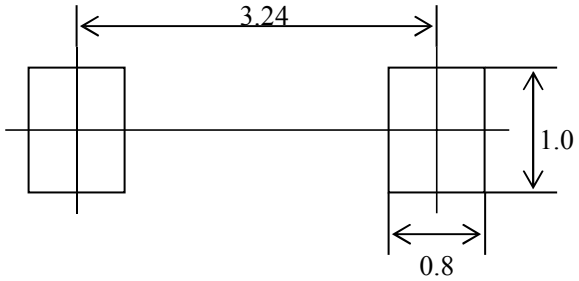
Parameters	Symbol	Test conditions	MBR 0520	MBR 0530	MBR 0540	MBR 0560	MBR 0580	Unit
Maximum forward voltage	VF	IF = 0.5A	0.45	0.55	0.55	0.70	0.80	V
Maximum reverse current	I_R	VR=20V	80	---	---	---	---	uA
		VR=30V	---	80	---	---	---	
		VR=40V	---	---	80	---	---	
		VR=60V	---	---	---	80	---	
		VR=80V	---	---	---	---	80	
Capacitance between terminals	C_T	VR = 4V, f = 1MHz	30	30	30	30	30	pF

SOD-123 PACKAGE OUTLINE Plastic surface mounted package



SYMBOL	DIMENSIONS	
	MIN.	MAX.
A	1.050	1.250
A1	0.000	0.100
A2	1.050	1.150
b	0.450	0.650
c	0.080	0.150
D	1.500	1.700
E	2.600	2.800
E1	3.550	3.850
L	0.500REF	
L1	0.250	0.450
θ	0°	8°

焊盘设计参考Precautions: PCB Design(Recommended land dimensions for SOD-123 diode. Electrode patterns for PCBs)



中心距: 3.24
脚 宽 : 0.55
焊盘宽: 1.00
脚 长 : 0.50
焊盘长: 0.80

技术要求:
1, 塑封体尺寸: 2.70 X 1.60
2: 未注公差为: ±0.05
3, 所有单位: mm