MBR0520-MBR0580
SOD-123 Plastic-Encapsulate Schottky Barrier Diode

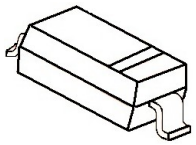
Features

- 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

SOD-123

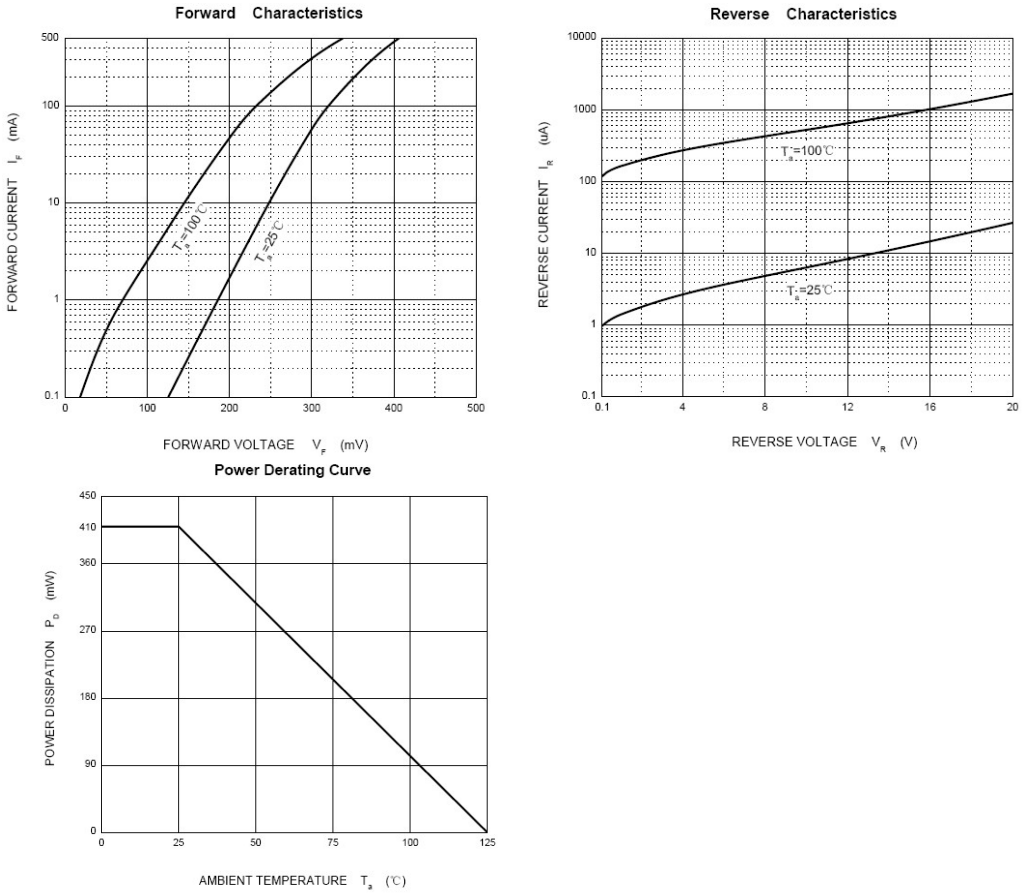


Maximum Ratings & Thermal Characteristics (Ratings at 25℃ ambient temperature unless otherwise specified.)

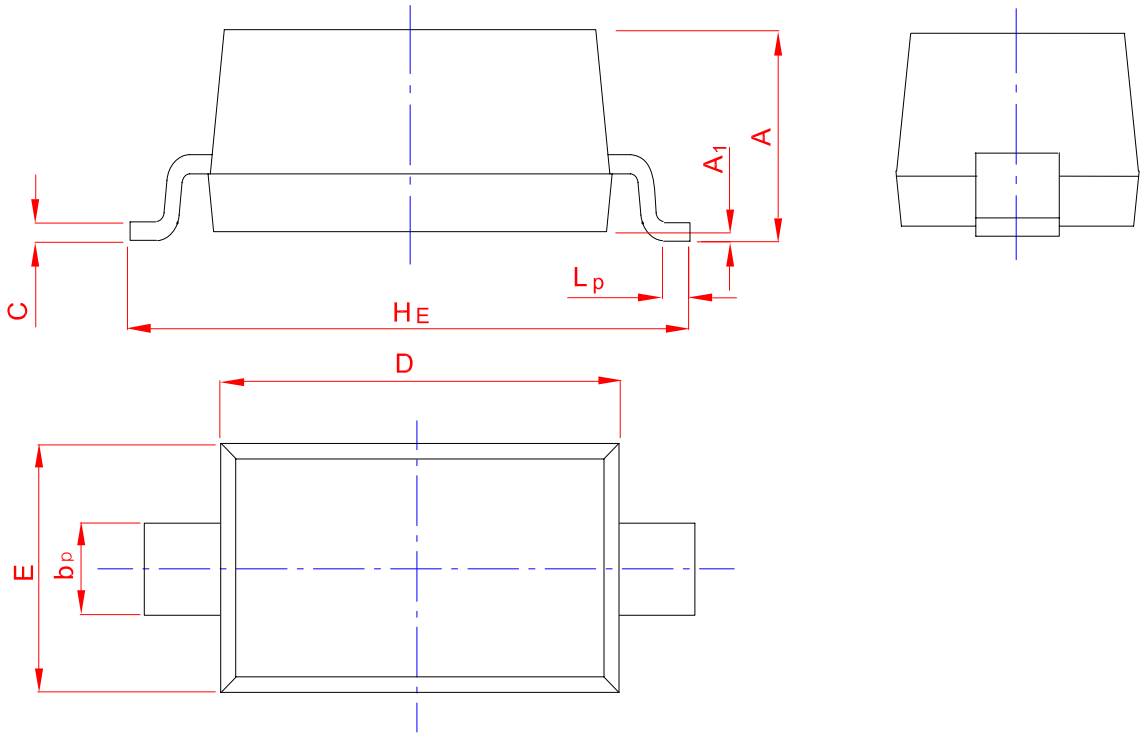
Parameters	Symbol	MBR 0520	MBR 0530	MBR 0540	MBR 0560	MBR 0580	Unit
Maximum repetitive peak reverse voltage	V_{RRM}	20	30	40	60	80	V
Maximum RMS voltage	V_{RMS}	14	21	28	42	56	V
Maximum DC blocking voltage	V_{DC}	20	30	40	60	80	V
Maximum average forward rectified current	I_{FM}	0.5					A
Peak forward 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	V_F	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



UNIT	A	b_p	C	D	E	H_E	A_1	L_p
mm	1.25 0.90	0.65 0.45	0.15 0.08	2.80 2.55	1.70 1.50	3.85 3.55	0.10 0.01	0.50 0.20