



MBR0520WS~MBR0540WS

Schottky Barrier Diodes

Features

- High Conductance
- Low Forward Voltage Drop
- Guard Ring Construction for Transient Protection

SOD-323



1.Cathode  2.Anode

Marking Code :

MBR0520WS: SD

MBR0530WS: SE

MBR0540WS: SF

Maximum Ratings and Electrical Characteristics

Ratings at 25°C ambient temperature unless otherwise specified.

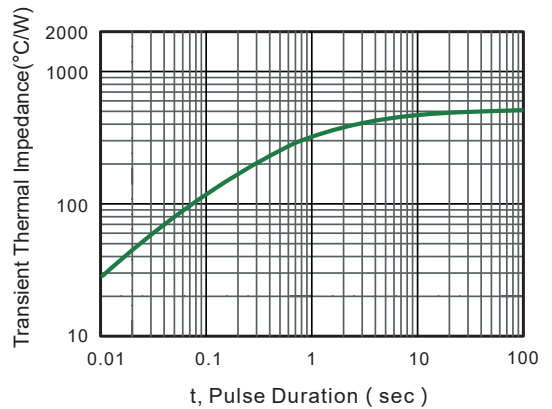
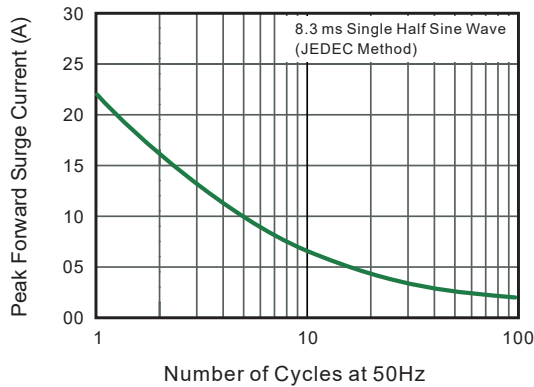
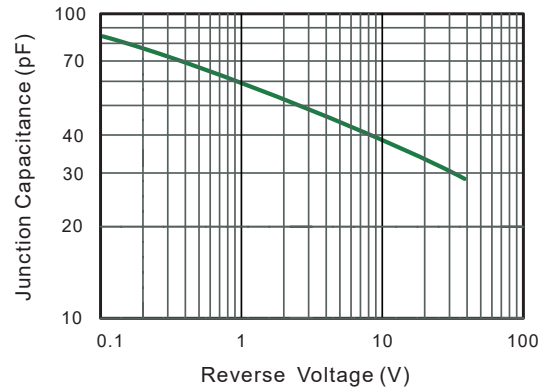
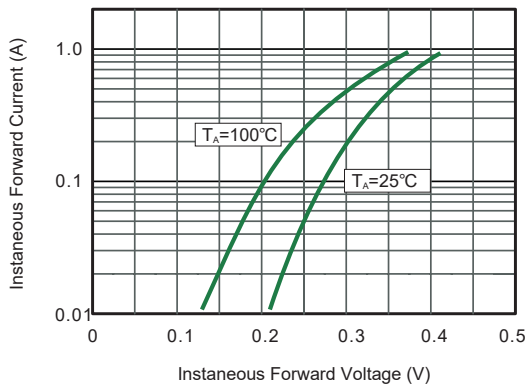
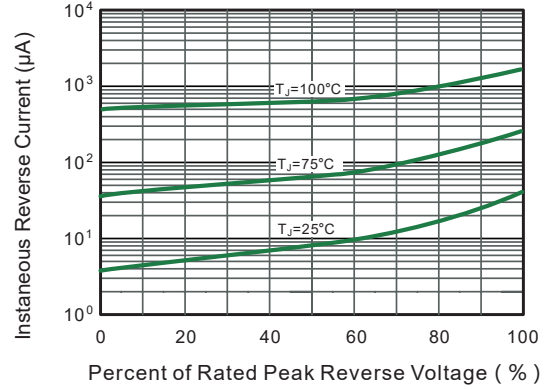
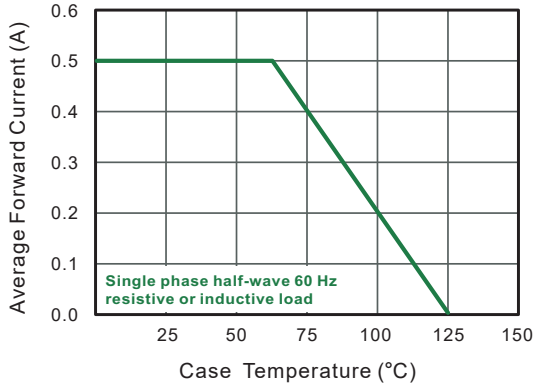
Parameter	Symbols	MBR0520WS	MBR0530WS	MBR0540WS	Units
Maximum Repetitive Peak Reverse Voltage	V_{RRM}	20	30	40	V
Maximum RMS Voltage	V_{RMS}	14	21	28	V
Maximum DC Blocking Voltage (DC)	V_{DC}	20	30	40	V
Maximum Average Forward Rectified Current at $T_A = 25^\circ\text{C}$	$I_{F(AV)}$	0.5			A
Peak Forward Surge Current 8.3 ms Single Half Sine Wave Superimposed on Rated Load	I_{FSM}	22			A
Maximum Instantaneous Forward Voltage at $I_F=0.1\text{ A}$	V_F	0.33	0.36	--	V
at $I_F=0.5\text{ A}$		0.39	0.45	0.51	
at $I_F=1\text{ A}$		--	--	0.62	
Maximum DC Reverse Current at Rated DC Blocking Voltage at $V_R=10\text{ V}$	I_R	75	--	--	μA
at $V_R=15\text{ V}$		--	75	--	
at $V_R=20\text{ V}$		250	100	10	
at $V_R=30\text{ V}$		--	500	--	
at $V_R=40\text{ V}$		--	--	20	
Thermal Resistance, Junction to Ambient Air	$R_{\theta JA}$	500			$^\circ\text{C/W}$
Junction Temperature	T_J	125			$^\circ\text{C}$
Storage Temperature Range	T_{STG}	-55 to +150			$^\circ\text{C}$



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Typical Characteristic Curves





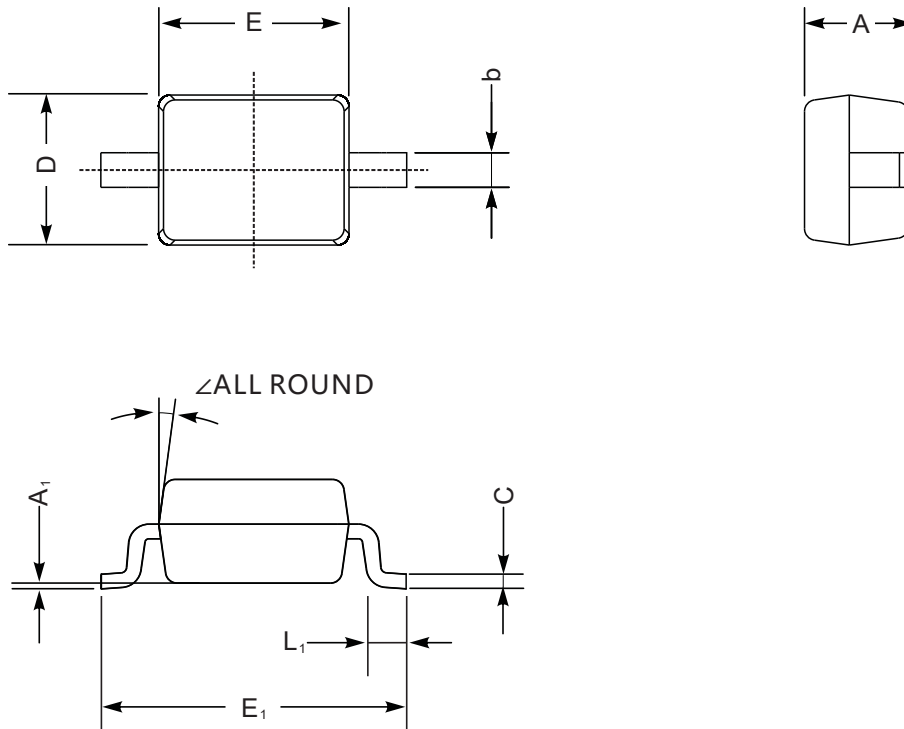
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Package Outline

SOD-323

Dimensions in mm



UNIT		A	C	D	E	E ₁	b	L ₁	A ₁	∠
mm	max	1.1	0.15	1.4	1.8	2.75	0.4	0.45	0.2	9°
	min	0.8	0.08	1.2	1.4	2.55	0.25	0.2	—	
mil	max	43	5.9	55	70	108	16	16	8	
	min	32	3.1	47	63	100	9.8	7.9	—	