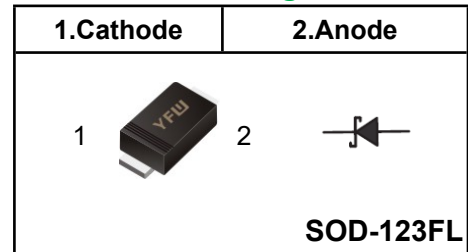


Schottky Rectifier Diodes

FEATURES

- ◆ Low forward voltage drop
- ◆ Guard ring construction for Transient protection.
- ◆ High conductance.
- ◆ Also available in lead free version.

Pinning



Marking Code

MBR0520LW	SD
MBR0530LW	SE
MBR0540LW	SF

Absolute Maximum Ratings Ta = 25°C

Parameter	Symbol	MBR0520LW	MBR0530LW	MBR0540LW	Unit
Peak repetitive peak reverse voltage	V _{RRM}				
Working peak	V _{RWM}	20	30	40	V
DC blocking voltage	V _R				
RMS reverse voltage	V _{R(RMS)}	14	21	28	V
Average rectified output current	I _O	500			mA
Peak forward surge current	I _{FSM}	5.5			A
Power dissipation	P _d	410			mW
Voltage rate of change	dv/dt	1000			V/μs
Thermal resistance junction to ambient	R _{θJA}	304			°C/W
Storage temperature	T _{stg}	-65 to +125			°C

Electrical characteristics Ta= 25°C

Parameter	Symbol	Testconditons	Min	Typ	Max	Unit	
MinimumReverseBreakdownVoltage	MBR0520LW	V _{(BR)R}	I _R =250 μ A			V	
	MBR0530LW						I _R =200 μ A
	MBR0540LW						I _R =20 μ A
Forward voltage	MBR0520LW	V _{F1}	I _F =0.1A			V	
	MBR0530LW						0.3
Forward voltage	MBR0520LW	V _{F2}	I _F =0.5A			V	
	MBR0530LW						0.375
	MBR0540LW						0.430
Forwardvoltage	MBR0540LW	V _{F3}	I _F =1A			V	
Reverse current	MBR0520LW	R ₁	V _R =10V			μ A	
	MBR0530LW	I _{R2}	V _R =15V			μ A	
Reverse current	MBR0520LW	I _{R3}	V _R =20V			250	
	MBR0540LW					10	
Reverse current	MBR0530LW	I _{R4}	V _R =30V			μ A	
	MBR0540LW	I _{R5}	V _R =40V			μ A	
Capacitance between terminals	C _T	V _R =0V,f=1MHZ	170			pF	

Typical Characteristics

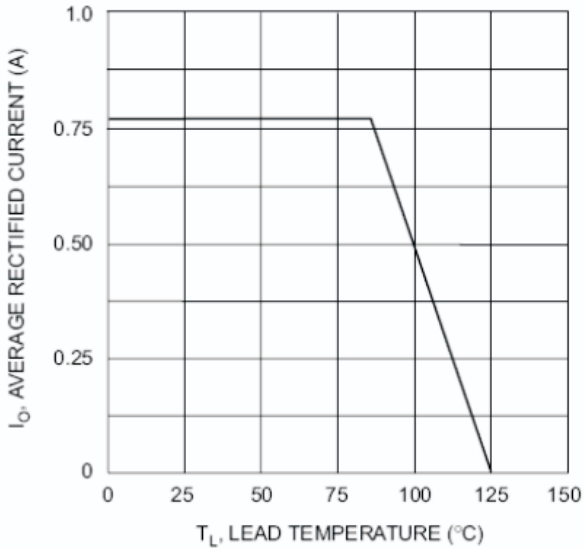


Fig.1 Forward Current Derating Curve

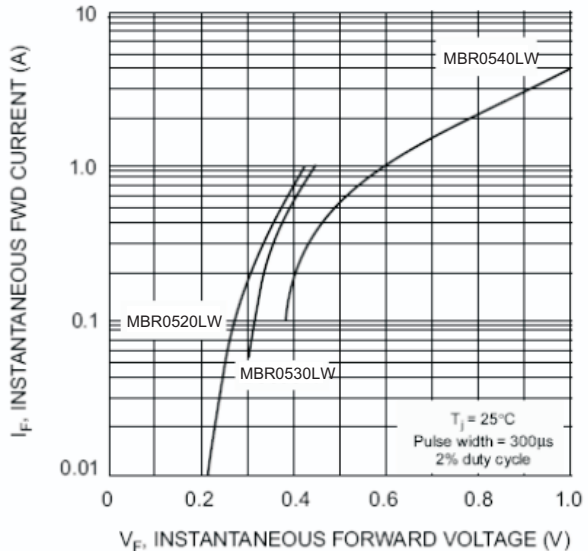


Fig.2 Typical Forward Characteristics

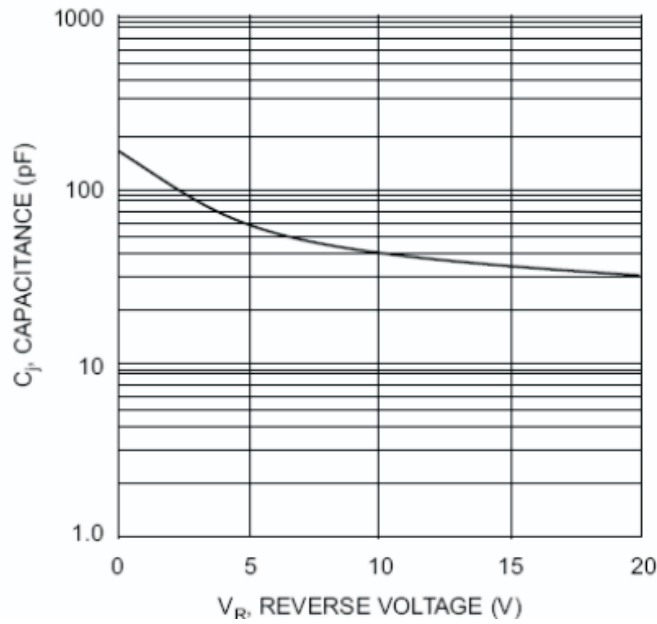
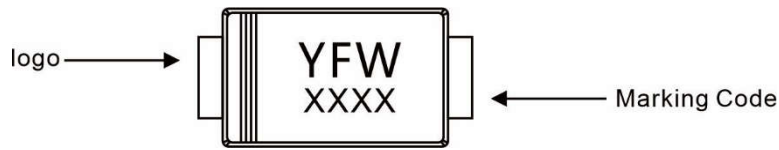


Fig.3 Typ. Junction Capacitance vs Reverse Voltage

Marking Diagram



Ordering information

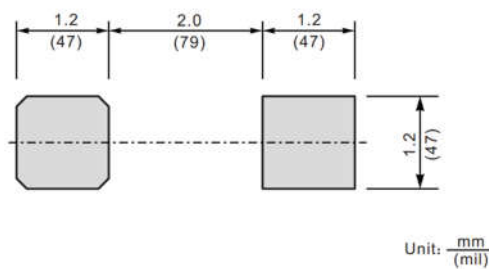
Package	Packing Description	Packing Quantity
SOD-123FL	Tape/Reel, 7" reel	3000PCS/Reel 120000PCS/Carton

Package Dimensions

SOD-123FL

Dim.	Millimeter(mm)		mil	
	Min.	Max.	Min.	Max.
A	0.9	1.3	35	43
C	0.12	0.20	4.7	7.9
D	2.6	2.9	102	114
E	1.7	1.9	67	75
e	0.8	1.1	31	43
g	0.7	0.9	28	35
HE	3.5	3.8	138	150
∠	7°			

The recommended mounting pad size



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