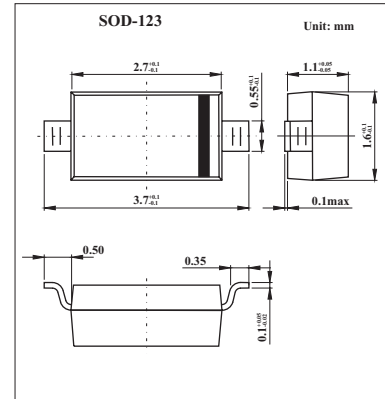


Schottky Rectifier Diodes

KBR0520LW/0530W/0540W (MBR0520LW/0530W/0540W)



■ Features

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

■ Absolute Maximum Ratings $T_a = 25^\circ\text{C}$

Parameter	Symbol	KBR0520LW	KBR0530W	KBR0540W	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/ μ s
Thermal resistance junction to ambient	$R_{\theta JA}$	304			$^\circ\text{C}/\text{W}$
Storage temperature	T_{stg}	-65 to +125			$^\circ\text{C}$

■ Electrical Characteristics $T_a = 25^\circ\text{C}$

Parameter	Symbol	Testconditions	Min	Typ	Max	Unit
Minimum Reverse Breakdown Voltage	KBR0520LW	$V_{(BR)R}$	$I_R=250\ \mu\text{A}$	20		V
	KBR0530W			30		
	KBR0540W			40		
Forward voltage	KBR0520LW	V_{F1}	$I_F=0.1\text{A}$	0.3		V
	KBR0530W			0.375		
Forward voltage	KBR0520LW	V_{F2}	$I_F=0.5\text{A}$	0.375		V
	KBR0530W			0.430		
	KBR0540W			0.510		
Forward voltage	KBR0540W	V_{F3}	$I_F=1\text{A}$	0.62		V
Reverse current	KBR0520LW	I_{R1}	$V_R=10\text{V}$	75		μA
	KBR0530W	I_{R2}	$V_R=15\text{V}$	20		μA
Reverse current	KBR0520LW	I_{R3}	$V_R=20\text{V}$	250		μA
	KBR0540W			10		μA
Reverse current	KBR0530W	I_{R4}	$V_R=30\text{V}$	130		μA
	KBR0540W	I_{R5}	$V_R=40\text{V}$	20		μA
Capacitance between terminals	C_T	$V_R=0\text{V}, f=1\text{MHz}$	170			pF

■ Marking

NO.	KBR0520LW	KBR0530W	KBR0540W
Marking	SD	SE	SF

KBR0520LW/0530W/0540W
(MBR0520LW/0530W/0540W)

■ Typical Characteristics

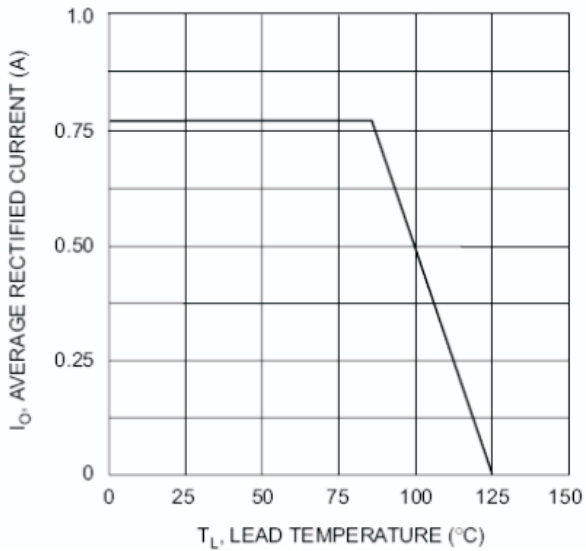


Fig.1 Forward Current Derating Curve

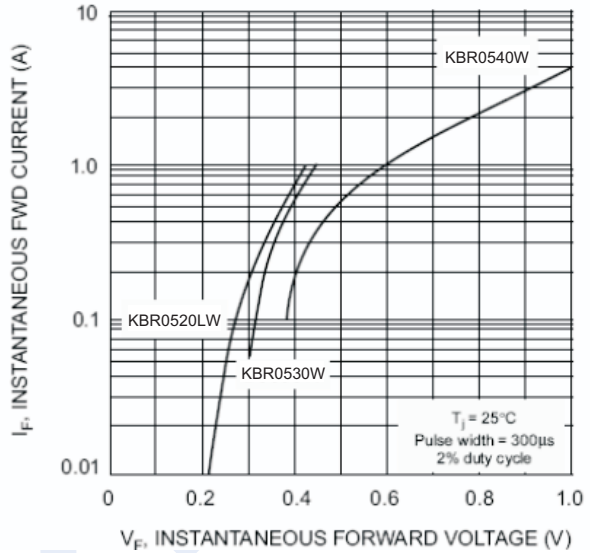


Fig.2 Typical Forward Characteristics

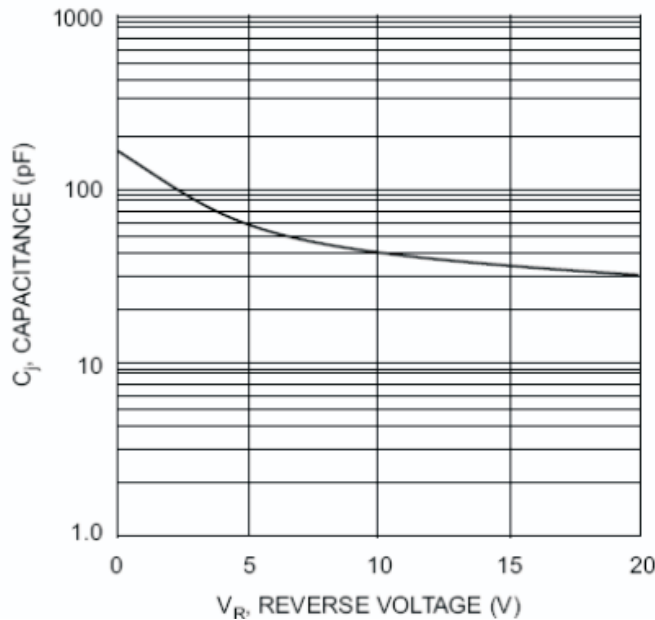


Fig.3 Typ. Junction Capacitance vs Reverse Voltage