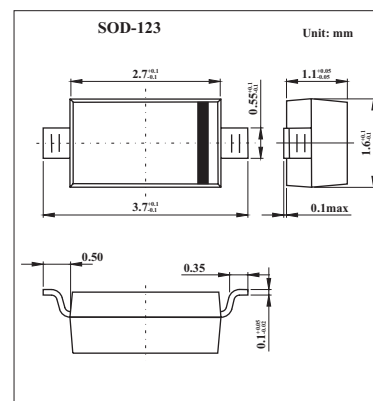


Schottky Rectifier Diodes

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	Test conditions	Min	Typ	Max	Unit
Minimum Reverse Breakdown Voltage	KBR0520LW	$I_R=250\ \mu\text{A}$	20			V
	KBR0530W	$I_R=200\ \mu\text{A}$	30			
	KBR0540W	$I_R=20\ \mu\text{A}$	40			
Forward voltage	KBR0520LW	$I_F=0.1\text{A}$	0.3			V
	KBR0530W		0.375			
Forward voltage	KBR0520LW	$I_F=0.5\text{A}$	0.375			V
	KBR0530W		0.430			
	KBR0540W		0.510			
Forward voltage	KBR0540W	$I_F=1\text{A}$	0.62			V
Reverse current	KBR0520LW	$V_R=10\text{V}$	75			μA
	KBR0530W	$V_R=15\text{V}$	20			μA
Reverse current	KBR0520LW	$V_R=20\text{V}$	250			μA
	KBR0540W		10			μA
Reverse current	KBR0530W	$V_R=30\text{V}$	130			μA
	KBR0540W	$V_R=40\text{V}$	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

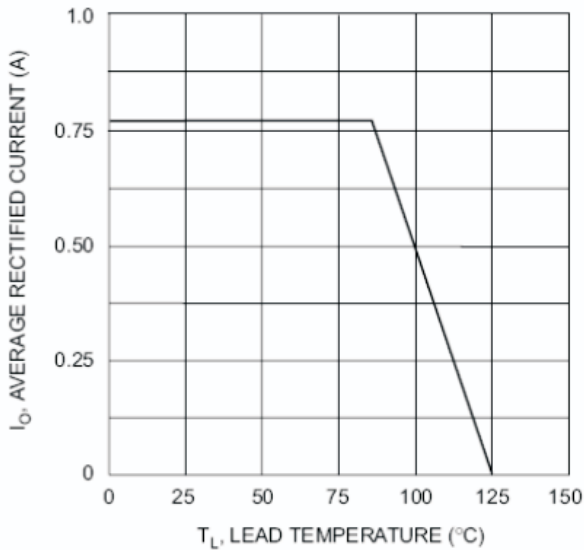


Fig.1 Forward Current Derating Curve

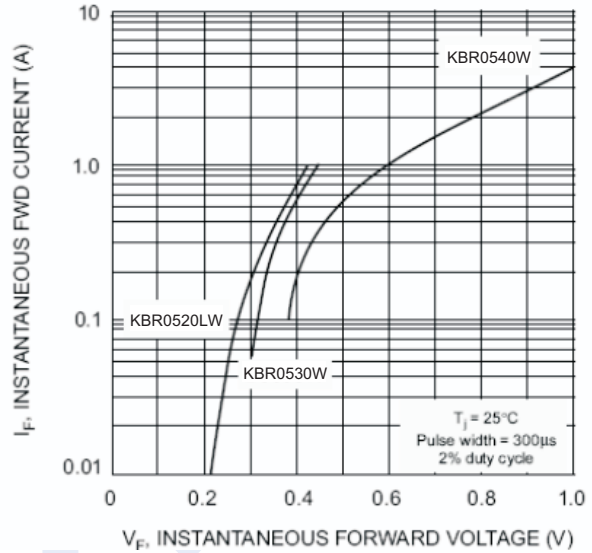


Fig.2 Typical Forward Characteristics

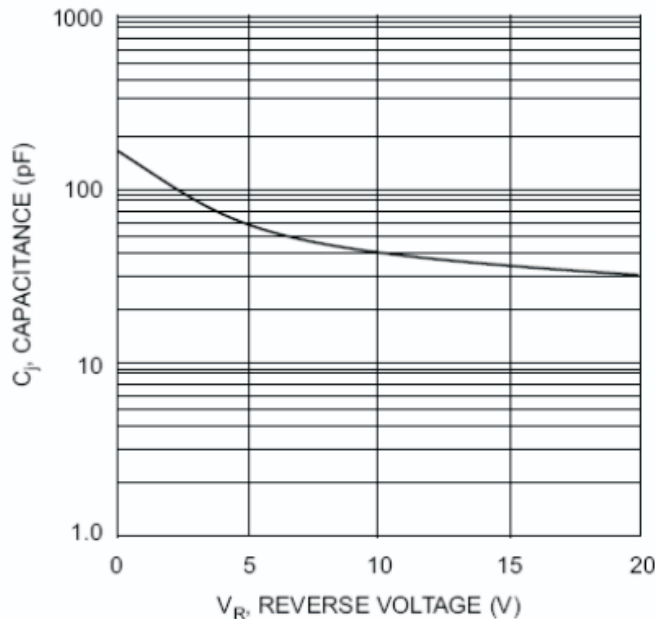


Fig.3 Typ. Junction Capacitance vs Reverse Voltage