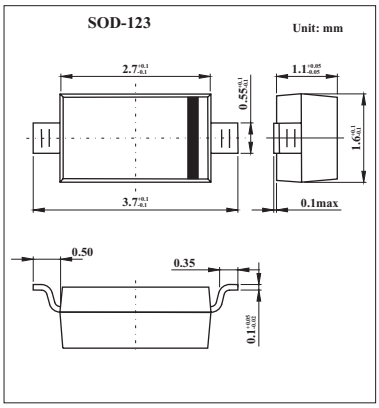
TY Semicondutor®

Product specification

KBR0520LW/0530W/0540W

(MBR0520LW/0530W/0540W)



■ Features

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

■ Absolute Maximum Ratings Ta = 25℃

Parameter	Symbol	KBR0520LW	KBR0530W	KBR0540W	Unit
Peak repetitive peak reverse voltage Working peak DC blocking voltage	V_{RRM} V_{RWM} V_R	20	30	40	V
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	Pd	410			mW
Voltage rate of change	dv/dt	1000			V/μs
Thermal resistance junction to ambient	$R_{\theta JA}$	304			℃/W
Storage temperature	T_{stg}	-65 to +125			℃

■ Electrical Characteristics Ta = 25℃

Parameter		Symbol	Testconditons	Min	Typ	Max	Unit
Minimum Reverse Breakdown Voltage	KBR0520LW	$V_{(BR)R}$	I_R=250μA	20			V
	KBR0530W		I_R=200μA	30			
	KBR0540W		I_R=20μA	40			
Forward voltage	KBR0520LW	V_{F1}	I_F=0.1A	0.3			V
	KBR0530W			0.375			
Forward voltage	KBR0520LW	V_{F2}	I_F= =0.5A	0.375			V
	KBR0530W			0.430			
	KBR0540W			0.510			
Forward voltage	KBR0540W	V_{F3}	I_F=1A	0.62			V
Reverse current	KBR0520LW	I_{R1}	V_R=10V	75			μA
	KBR0530W	I_{R2}	V_R=15V	20			μA
Reverse current	KBR0520LW	I_{R3}	V_R=20V	250			μA
	KBR0540W			10			μA
Reverse current	KBR0530W	I_{R4}	V_R=30V	130			μA
	KBR0540W	I_{R5}	V_R=40V	20			μA
Capacitance between terminals		C_T	V_R=0V,f=1MHz	170			pF

■ Marking

NO.	KBR0520LW	KBR0530W	KBR0540W
Marking	SD	SE	SF

KBR0520LW/0530W/0540W

(MBR0520LW/0530W/0540W)

■ Typical Characteristics

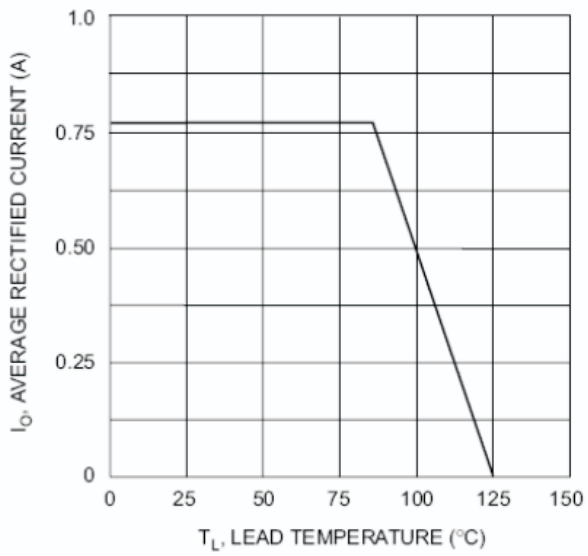


Fig.1 Forward Current Derating Curve

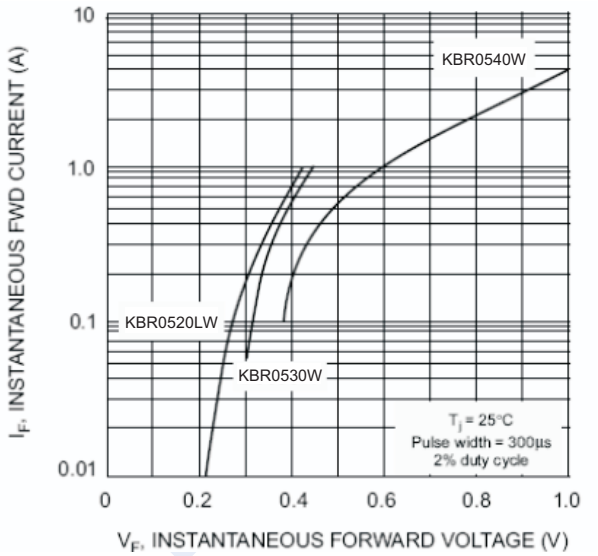


Fig.2 Typical Forward Characteristics

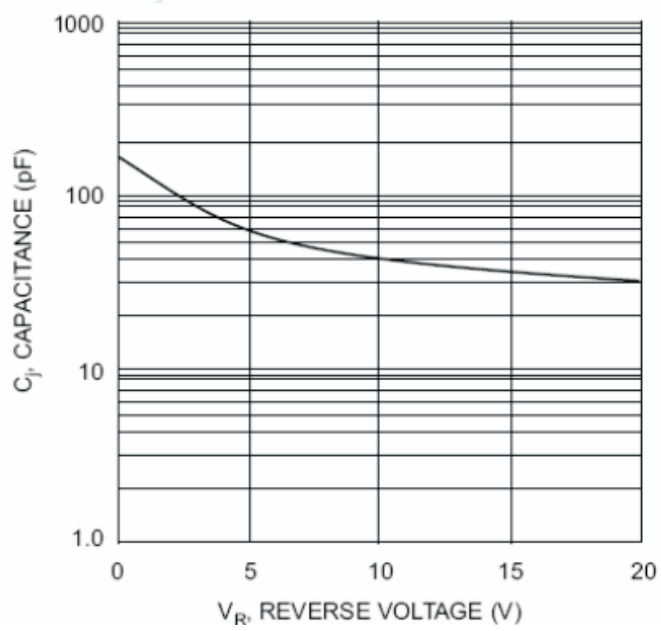


Fig.3 Typ.Junction Capacitance vs Reverse Voltage