

## SCHOTTKY BARRIER DIODE

### FEATURES

- Low Forward Voltage Drop
- Guard Ring Construction for Transient Protection
- High Conductance
- Also Available in Lead Free Version

**MARKING: B0520LW:SD**

**B0530W: SE**

**B0540W: SF**

### Maximum Ratings @T<sub>A</sub>=25°C

Parameter	Symbol	B0520LW	B0530W	B0540W	Unit
Peak Repetitive Peak reverse voltage	V <sub>RRM</sub>				
Working Peak Reverse Voltage	V <sub>RWM</sub>	20	30	40	V
DC Blocking Voltage	V <sub>R</sub>				
RMS Reverse Voltage Reverse voltage (DC)	V <sub>R(RMS)</sub>	14	21	28	V
Average rectified output Current	I <sub>o</sub>		0.5		A
Forward current surge peak	I <sub>FSM</sub>		5.5		A
Power dissipation	P <sub>D</sub>		500		mW
Thermal Resistance Junction to Ambient	R <sub>θJA</sub>		250		°C/W
Junction temperature	T <sub>j</sub>		150		°C
Storage temperature	T <sub>STG</sub>		-65~+150		°C
Voltage Rate of Change	dv/dt		1000		V/μS

### Electrical Characteristics @T<sub>A</sub>=25°C

Parameter	Symbol	B0520LW	B0530W	B0540W	Unit	Conditions
Minimum Reverse Breakdown Voltage	V <sub>(BR)R</sub>	20	--	--	V	I <sub>R</sub> =250 μ A
		--	30	--		I <sub>R</sub> =200 μ A
		--	--	40		I <sub>R</sub> =20 μ A
Forward voltage	V <sub>F1</sub>	0.320	0.375	--	V	I <sub>F</sub> =0.1A
	V <sub>F2</sub>	0.385	0.430	0.510		I <sub>F</sub> =0.5A
	V <sub>F3</sub>	--	--	0.62		I <sub>F</sub> =1A
Reverse current	I <sub>R1</sub>	75	--	--	μA	V <sub>R</sub> =10V
	I <sub>R2</sub>	--	20	--		V <sub>R</sub> =15V
Reverse current	I <sub>R3</sub>	250	--	10	μA	V <sub>R</sub> =20V
	I <sub>R4</sub>	--	130	--		V <sub>R</sub> =30V
	I <sub>R5</sub>	--	--	20		V <sub>R</sub> =40V
Capacitance between terminals	C <sub>T</sub>	--	--	170	pF	V <sub>R</sub> =0,f=1MHz

## Typical Characteristics

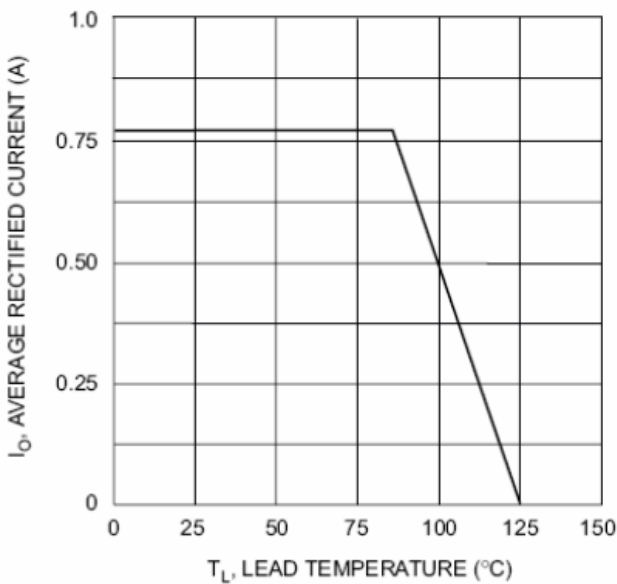


Fig. 1 Forward Current Derating Curve

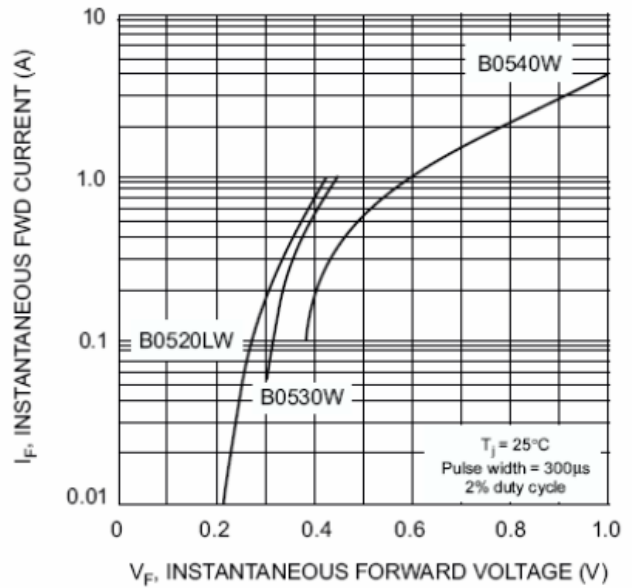


Fig. 2 Typical Forward Characteristics

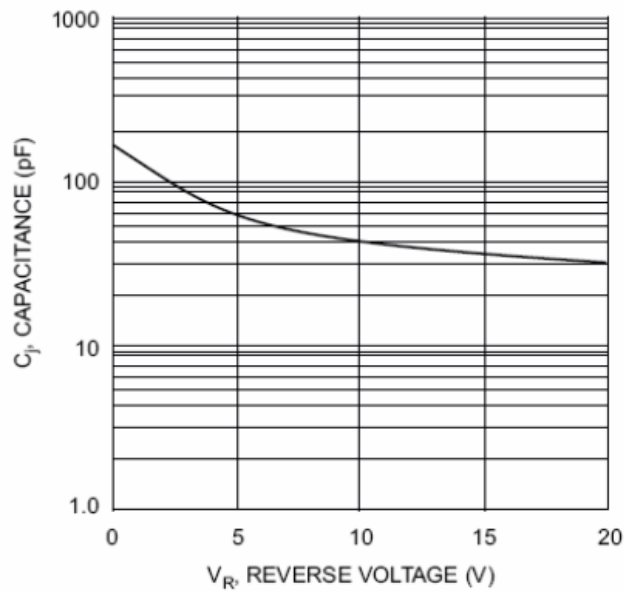


Fig. 3 Typ. Junction Capacitance vs Reverse Voltage