



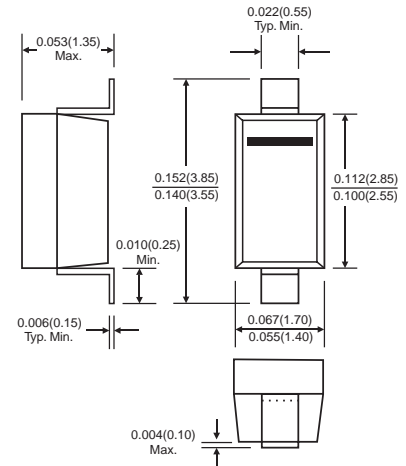
### Features

- ◇ 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 and Electrical Characteristics

Rating at 25°C ambient temperature unless otherwise specified.

Dimensions in inches and (millimeters)

#### Maximum Ratings and Electrical Characteristics

Parameter	Symbol	B0520LW	B0530W	B0540W	Unit
Peak Repetitive Peak reverse voltage	$V_{RRM}$				
Working Peak Reverse Voltage	$V_{RWM}$	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
Thermal Resistance Junction to Ambient	$R_{\theta JA}$		304		°C/W
Storage temperature	$T_{STG}$		-65~+125		°C
Voltage Rate of Change	$dv/dt$		1000		V/μs

#### Electrical Ratings

Parameter	Symbol	B0520LW	B0530W	B0540W	Unit	Conditions
Minimum Reverse Breakdown Voltage	$V_{(BR)R}$	20	-	-	V	$I_R=250\mu A$
		-	30	-		$I_R=200\mu A$
		-	-	40		$I_R=20\mu A$
Forward voltage	$V_{F1}$	0.3	0.375	-	V	$I_F=0.1A$
	$V_{F2}$	0.385	0.430	0.510		$I_F=0.5A$
	$V_{F3}$	-	-	0.62		$I_F=1A$
Reverse current	$I_{R1}$	75	-	-	μA	$V_R=10V$
	$I_{R2}$	-	20	-		$V_R=15V$
Reverse current	$I_{R3}$	250	-	10	μA	$V_R=20V$
	$I_{R4}$	-	130	-		$V_R=30V$
	$I_{R5}$	-	-	20		$V_R=40V$
Capacitance between terminals	$C_T$			170	pF	$V_R=0V, f=1MHz$

## Typical Characteristics

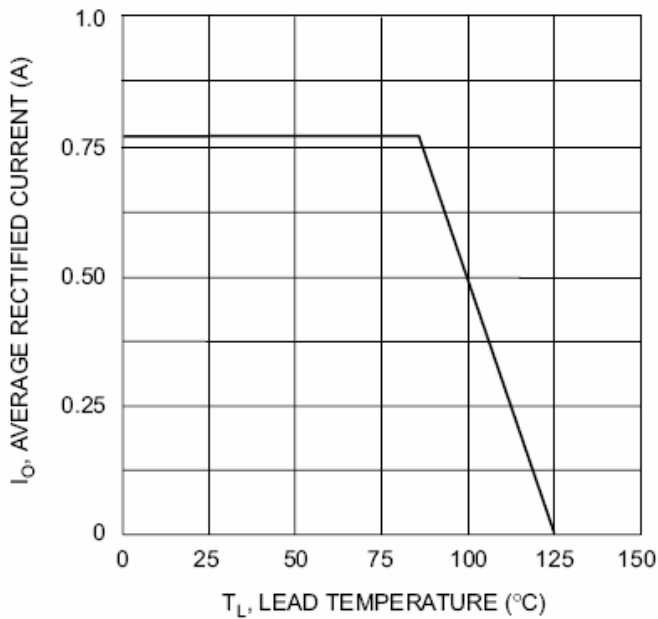


Fig. 1 Forward Current Derating Curve

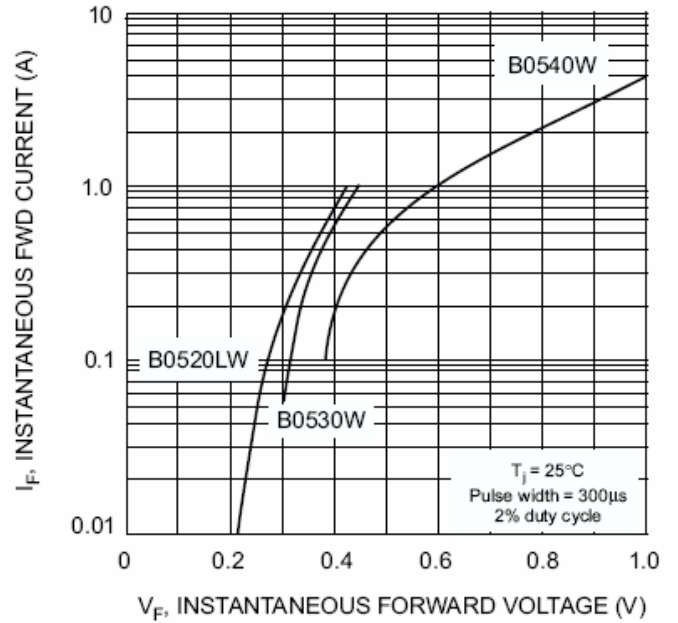


Fig. 2 Typical Forward Characteristics

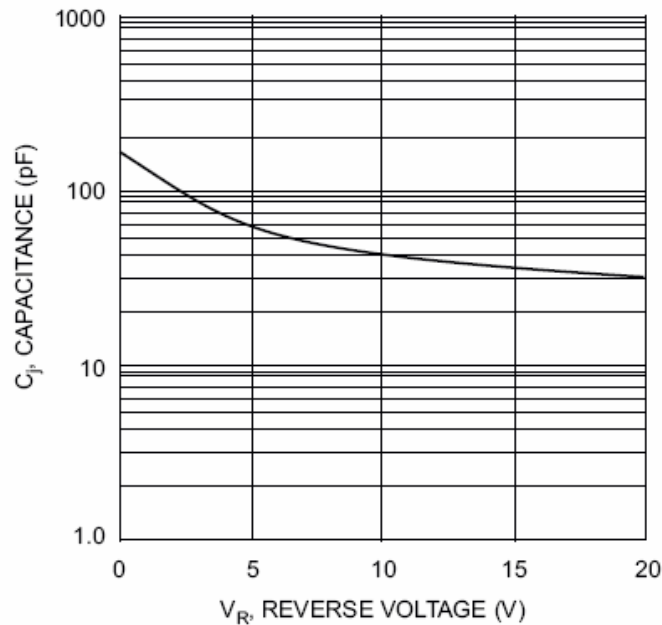


Fig. 3 Typ. Junction Capacitance vs Reverse Voltage