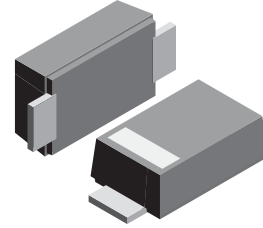


VOLTAGE RANGE: 20 - 40V
CURRENT: 500mA

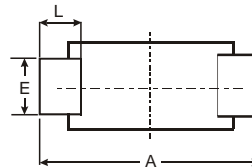
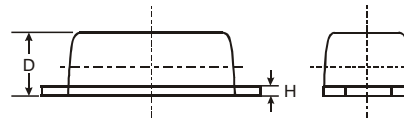
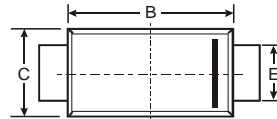


Features

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

Mechanical Data

- Case: JEDEC SOD-123FL molded
- plastic body over passivated chip
- Terminals : Plated axial leads,
- solderable per MIL-STD-750, Method 2026
- Weight: 0.0007 ounce, 0.02 grams
- Marking : B0520LW:SD, B0530W:SE, B0540W:SF



SOD-123FL			
Dim	Min	Max	Typ
A	3.58	3.72	3.65
B	2.72	2.78	2.75
C	1.77	1.83	1.80
D	1.02	1.08	1.05
E	0.097	1.03	1.00
H	0.13	0.17	0.15
L	0.53	0.57	0.55
All Dimensions in mm			



Maximum Ratings and Electrical Characteristics T_A = 25°C unless otherwise specified

Single phase, half wave, 60Hz, resistive or inductive load. For capacitive load, derate current by 20%.

PARAMETER	SYMBOLS	B0520LW	B0530W	B0540W	UNITS
Peak repetitive peak reverse voltage	V _{RRM}				VOLTS
Working peak reverse voltage	V _{RWM}	20	30	40	
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		mA
Power dissipation	P _d		410		mW
Thermal resistance junction to ambient	R _{θJA}		244		K/W
Storage temperature	T _{STG}		-65 to +150		°C/W
Voltage rate of change	dv/dt		1000		V/μS

Electrical ratings @T_A=25°C

PARAMETER	SYMBOLS	B0520W	B0530W	B0540W	Unit	Conditions
Minimum reverse breakdown voltage	V _{BR}	20			V	I _R =250μA
			30		V	I _R =130μA
				40	V	I _R =20μA
Forward voltage	V _{F1}	0.3	0.375		V	I _F =0.1A
	V _{F2}	0.385	0.430	0.510	V	I _F =0.5A
	V _{F3}			0.62	V	I _F =1.0A
Reverse current	I _{R1}	75			μA	V _R =10V
	I _{R2}		20		μA	V _R =15V
	I _{R3}	250		10	μA	V _R =20V
	I _{R4}		130		μA	V _R =30V
	I _{R5}			20	μA	V _R =40V
Capacitance between terminals	C _T			170	pF	V _R =1V, f=1.0MHz
Reverse recovery time	t _{rr}			4	ns	I _F =I _R =10mA I _{rr} =0.1X I _R , R _L =100Ω

FIG. 1- FORWARD CURRENT DERATING CVRVE

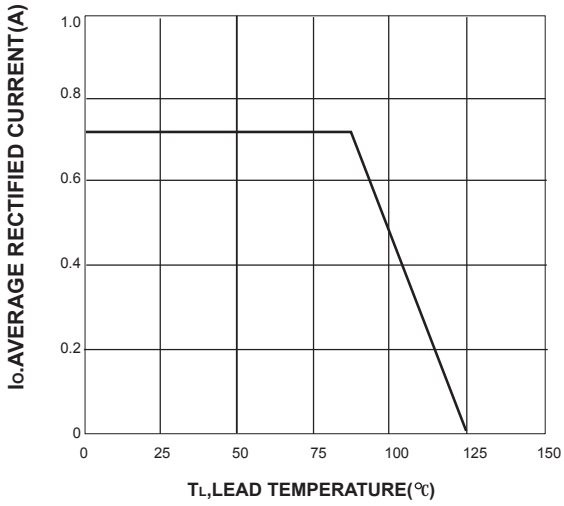


FIG. 2-TYPICAL FORWARD CHARACTERISTIC

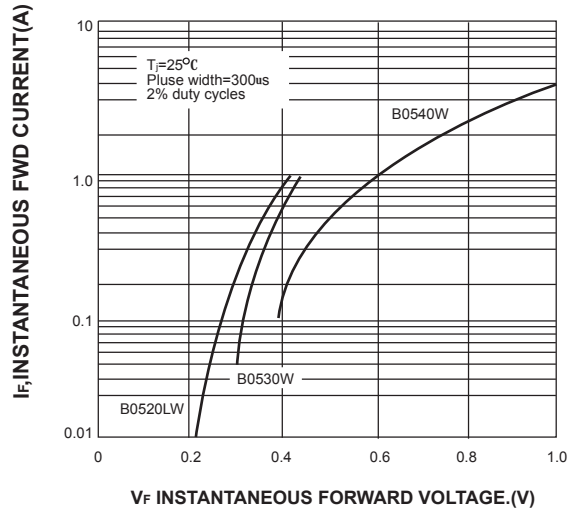


FIG. 3-TYP. JUNCTION CAPACITANCE VS REVERSE VOLTAGE

