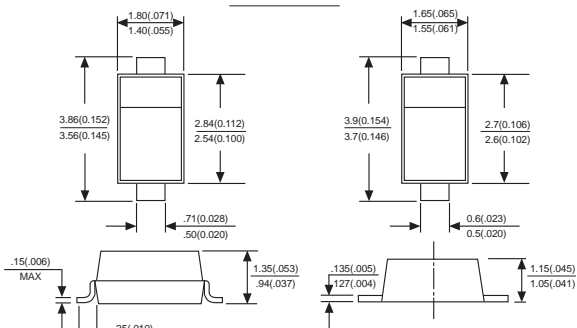


B0520W/B0530W/B0540W

SCHOTTKY DIODE

SOD-123



Dimensions in millimeters and (inches)

FEATURES

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

MECHANICAL DATA

Case: Molded plastic body

Terminals: Plated leads solderable per MIL-STD-750, Method 2026

Polarity: Polarity symbols marked on case

Marking: B0520 W:SD, B0530W:SE, B0540W:SF

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Maximum ratings and electrical characteristics, Single diode @T_A=25°C

PARAMETER	SYMBOLS	B0520W	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				V
RMS Reverse voltage	V _{R(RMS)}	14	21	28	
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 _{θJA}		244		°C/W
Storage temperature	T _{STG}		-65 to +150		°C
Voltage rate of change	dv/dt		1000		V/US

Electrical ratings @T_A=25°C

PARAMETER	SYMBOLS	B0520W	B0530W	B0540W	Unit	Conditions
Minimum reverse breakdown voltage	V _{BR}	20			V	I _R =250uA
			30		V	I _R =130uA
				40	V	I _R =20uA
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			uA	V _R =10V
	I _{R2}		20		uA	V _R =15V
	I _{R3}	250		10	uA	V _R =20V
	I _{R4}		130		uA	V _R =30V
	I _{R5}			20	uA	V _R =40V
Capacitance between terminals	C _T	170	170	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

RATINGS AND CHARACTERISTIC CURVES B0520W/B0530W/B0540W

FIG. 1- FORWARD CURRENT DERATING CVRVE

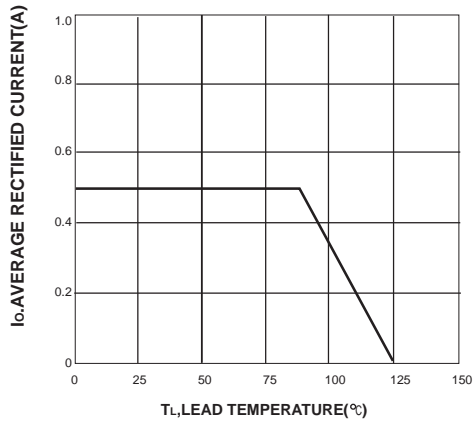


FIG. 2-TYPICAL FORWARD CHARACTERISTIC

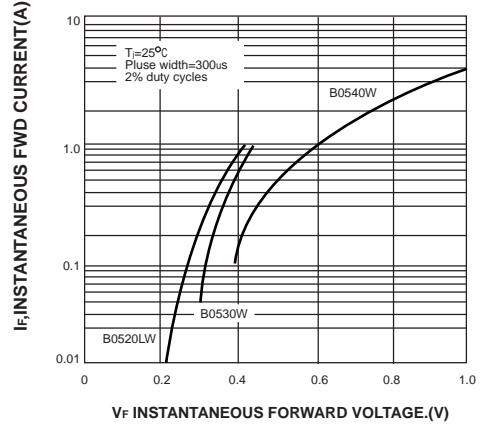


FIG. 3-TYP. JUNCTION CAPACITANCE VS REVERSE VOLTAGE

