Data Sheet

Customer：

Product :	Small Signal Schottky Diode-Low VF
Part No.:	B120LW/B130LW/B140LW
Issued Date:	11-Jan-11
Edition :	REV.A

RoHS Compliant

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1 Amperes Surface Mount Schottky Barrier Rectifiers
Voltage : 20 to 40Volts

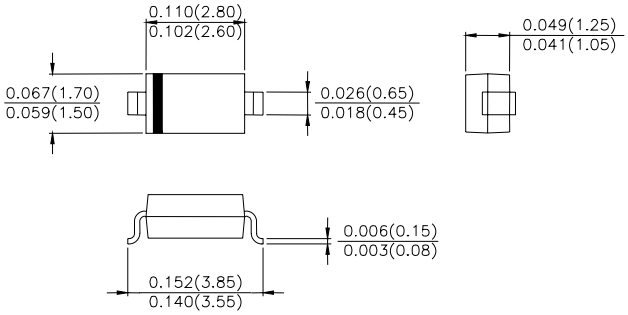
■Features

- Tiny plastic SMD package
- Low power loss, high efficiency
- High current capability, low forward voltage drop
- High surge capability
- Guardring for over voltage protection
- Ultra high-speed switching
- Silicon epitaxial planar chip, metal silicon junction
- Lead-free parts meet environmental standards of MIL-STD-19500/228
- Halogen free

■Mechanical Data

Epoxy : UL94-V0 rated flame retardant
Case : Molded Plastic, SOD-123
Terminals : Solder plated, Solderable per MIL-STD-750, Method 2026
Polarity : Indicated by cathode end
Weight : 0.0004 ounce, 0.010 gram
Packaging : 2.5Kpcs per 7" reel or 3Kpcs per 7" reel

■Package Dimensions in inches(millimeters): SOD-123



■Maximum Ratings And Electrical Characteristics

Rating at 25℃ ambient temperature unless otherwise specified. Single phase, half wave, 60Hz, resistive or inductive load.
For capacitive load, derate current by 20%.

Parameter	Symbol	B120LW	B130LW	B140LW	Unit
Marking Code		B2	B3	B4	
Maximum Recurrent Peak Reverse Voltage	V_{RRM}	20	30	40	V
Maximum RMS Voltage	V_{RMS}	14	21	28	V
Maximum DC Blocking Voltage	V_{DC}	20	30	40	V
Maximum Instantaneous Forward Voltage@1.0A, T_A=25℃	V_F	0.43		0.45	V
Operating Temperature	T_J	-50 ~ +100			℃

Parameter	Conditions	Symbol	Min.	Typ.	Max.	Unit
Forward Rectified Current	See Fig.2	I_O			1.0	A
Forward Surge Current	8.3ms single half sine-wave superimposed on rate load (JEDEC method)	I_{FSM}			5.5	A
Reverse Current	V_R=V_{RRM} , T_A=25℃	I_R			1.0	mA
	V_R=V_{RRM} , T_A=100℃				20	
Thermal Resistance	Junction to ambient	$R_{\theta JA}$		42		℃/W
Diode Junction Capacitance	f=1MHz and applied 4V DC reverse voltage	C_J		130		pF
Storage Temperature		T_{STG}	-50		+150	℃

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■Rated and Characteristic Curve

FIG.1-TYPICAL FORWARD CHARACTERISTICS

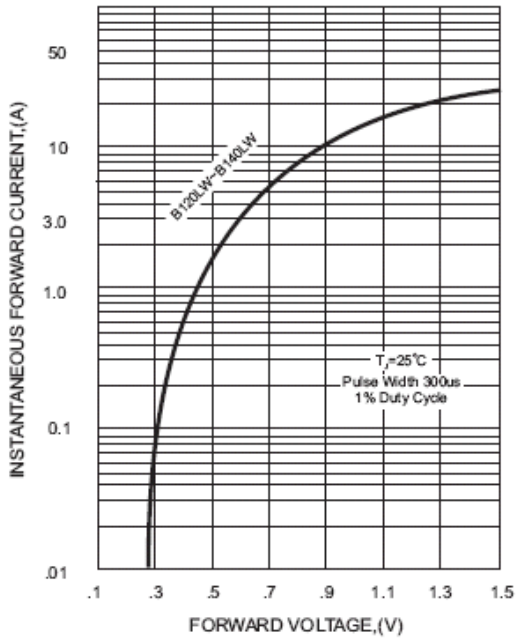


FIG.2-TYPICAL FORWARD CURRENT DERATING CURVE

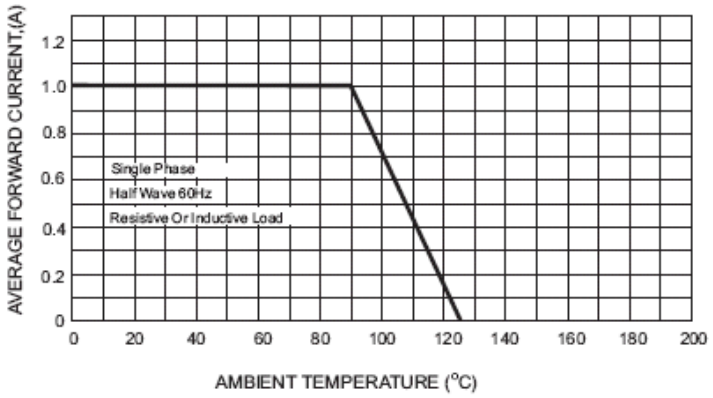


FIG.3 - TYPICAL REVERSE CHARACTERISTICS

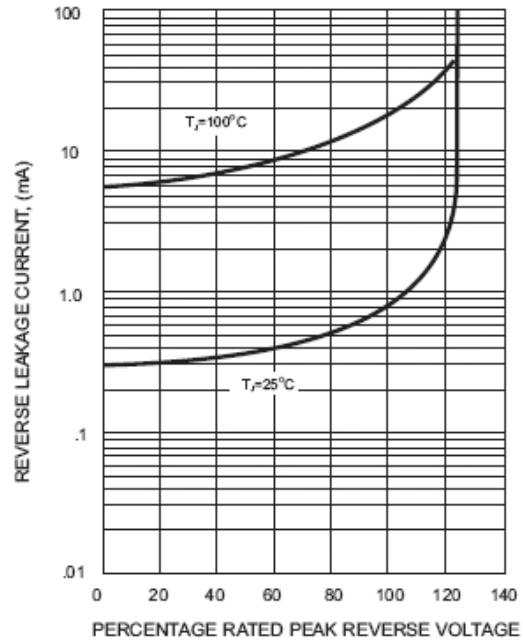
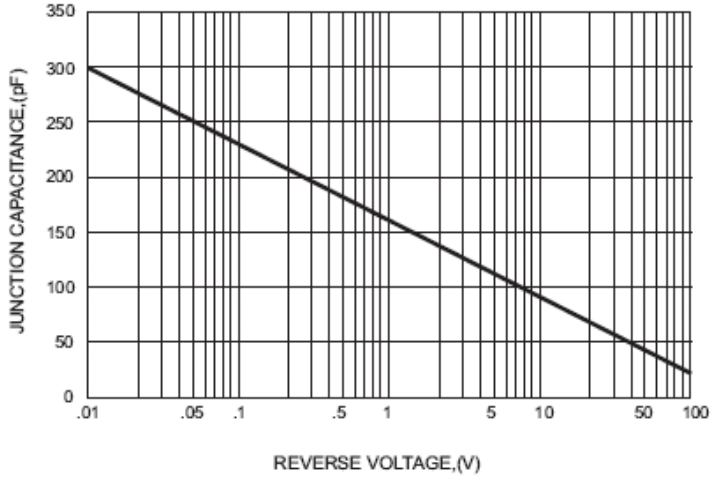


FIG.4-TYPICAL JUNCTION CAPACITANCE



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