Data Sheet

Customer：

Product :	Small Signal Schottky Diode-Standard
Part No.:	B120W-F/B130W-F/B140W-F/B160W-F/B1100W-F/B1150W-F/B1200W-F
Issued Date:	11-Jan-11
Edition :	REV.A

RoHS Compliant

VIKING TECH CORPORATION
光頡科技股份有限公司

No.70, Kuanfu N. Rad.,
Hsin Chu Industrial Park,
Hukou Hsiang, Hsin Chu Hsien,
303, Taiwan
TEL:886-3-5972931
FAX:886-3-5972935•886-3-5973494
E-mail:sales@viking.com.tw

VIKING TECH CORPORATION KAOHSIUNG BRANCH
光頡科技股份有限公司高雄分公司

No.248-3, Sin-Sheng Rd., Cian-Jhen Dist., Kaohsiung,
806, Taiwan

TEL:886-7-8217999
FAX:886-7-8228229
E-mail:sales@viking.com.tw

WUXI TMTEC CO., LTD.
無錫泰銘電子有限公司

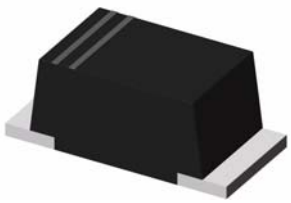
No.1A,(Xixia Road),Machinery & Industry Park,
National Hi-Tech Industrial Development Zone of
Wuxi, Wuxi, Jiangsu Province, China
Zip Code:214028
TEL:86-510-85203339
FAX:86-510-85203667•86-510-85203977
E-mail:wuxisales@tmtec.com.tw

Produced by (QC)	Checked (QC)	Approved by (QC)	Prepared by (Sales)	Accepted by (Customer)
11-Jan-11	11-Jan-11	11-Jan-11	11-Jan-11	
Kris	***Ann***	***J.C Liu***		

1 Amperes Surface Mount Schottky Barrier Rectifiers
Voltage : 20 to 200Volts

■Features

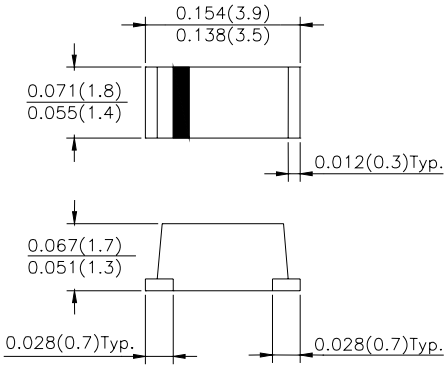
- Low profile surface mounted application in order to optimize board space
- Low power loss, high efficiency
- High current capability, low forward voltage drop
- High surge capability
- Guardring for over voltage protection
- Ultra high-speed switching
- Silicon epitaxial planar chip, metal silicon 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-123F
Terminals : Solder plated, Solderable per MIL-STD-750, Method 2026
Polarity : Indicated by cathode band
Weight : Approximated 0.018 gram
Packaging : 2.5Kpcs per 7" reel

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



■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	B120W-F	B130W-F	B140W-F	B160W-F	B1100W-F	B1150W-F	B1200W-F	Unit
Marking Code		12	13	14	16	10	115	120	
Maximum Recurrent Peak Reverse Voltage	V_{RRM}	20	30	40	60	100	150	200	V
Maximum RMS Voltage	V_{RMS}	14	21	28	42	70	105	140	V
Maximum DC Blocking Voltage	V_{DC}	20	30	40	60	100	150	200	V
Maximum Instantaneous Forward Voltage @1.0A, T_A=25℃	V_F	0.52			0.70	0.81	0.87	0.90	V
Operating Temperature	T_J	-50 ~ +125				-50 ~ +150			℃

Parameter	Conditions	Symbol	Min.	Typ.	Max.	Unit
Forward Rectified Current	See Fig.1	I_O			1.0	A
Forward Surge Current	8.3ms single half sine-wave superimposed on rate load (JEDEC method)	I_{FSM}			30	A
Reverse Current	V_R=V_{RRM} , T_A=25℃	I_R			0.1	mA
	V_R=V_{RRM} , T_A=100℃				20	
Thermal Resistance	Junction to ambient	$R_{\theta JA}$		88		℃/W
Diode Junction Capacitance	f=1MHz and applied 4V DC reverse voltage	C_J		120		pF
Storage Temperature		T_{STG}	-50		+150	℃

Tel: +886-3-597-2931／Fax: +886-3-597-2935
70, Kuanfu N Road, HsinChu Industrial Park, 303 Taiwan, ROC

■Rated and Characteristic Curve

FIG.1-TYPICAL FORWARD CURRENT DERATING CURVE

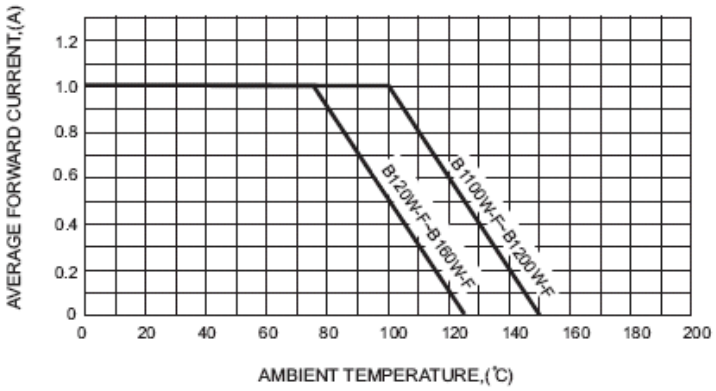


FIG.2-TYPICAL FORWARD CHARACTERISTICS

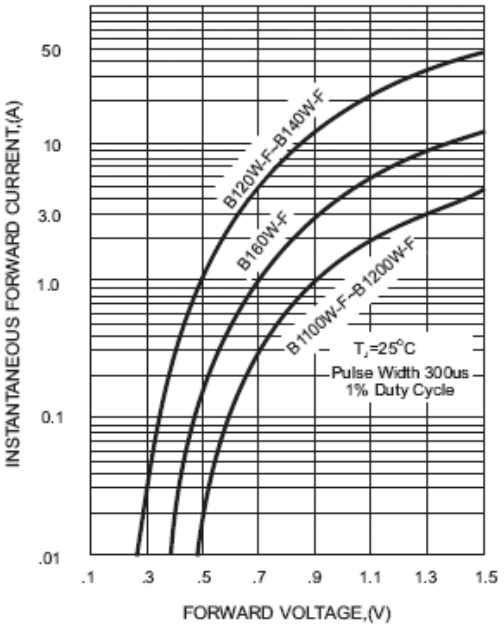


FIG.3-MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

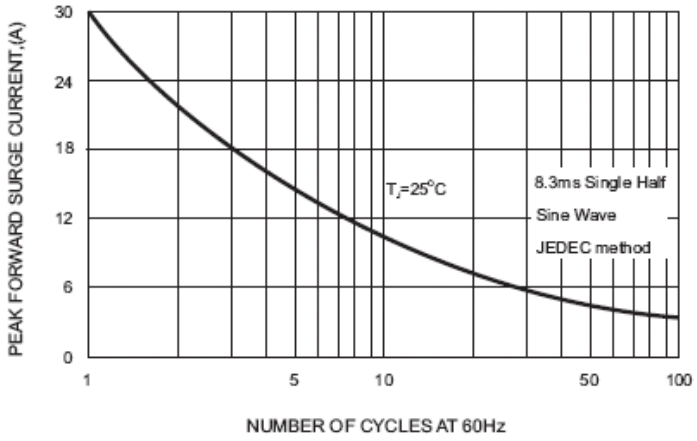


FIG.4-TYPICAL JUNCTION CAPACITANCE

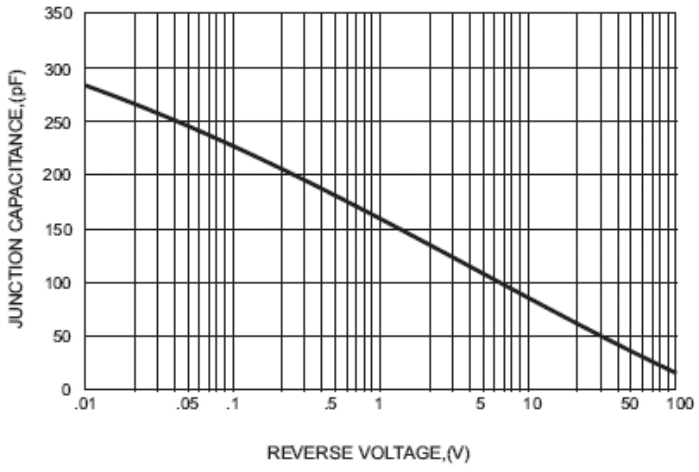
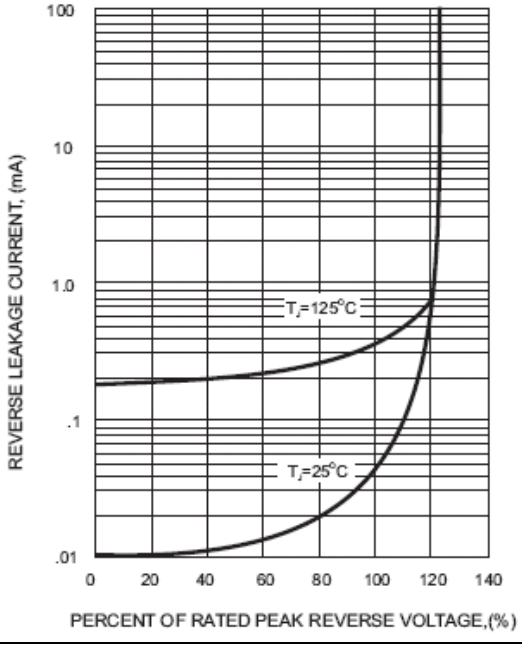


FIG.5 - TYPICAL REVERSE CHARACTERISTICS



Tel: +886-3-597-2931／Fax: +886-3-597-2935
70, Kuanfu N Road, HsinChu Industrial Park, 303 Taiwan, ROC