

Fast Recovery Rectifier

1A 200~600V DO-214AA SMB

MURS1-B Series

MERITEK

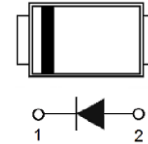
FEATURES

- Glass Passivated Die Construction
- High Forward Surge Current Capability
- Superfast Recovery Times for High Efficiency Rectification
- High Efficiency with Reduced Switching Losses and Optimized Energy Performance



APPLICATIONS

- Output Rectification in HF Converters and SMPS
- Freewheeling / Flyback Diode in DC-DC Converters
- Power Factor Correction Circuits in Power Management
- Suppresses Voltage in Snubber Circuits



ELECTRICAL CHARACTERISTICS

Parameter		Symbol	MURS120B	MURS140B	MURS160B	Unit
Maximum Recurrent Peak Reverse Voltage		V _{RRM}	200	400	600	V
Maximum RMS Voltage		V _{RMS}	140	280	420	V
Maximum DC Blocking Voltage		V _{DC}	200	400	600	V
Maximum Average Forward Rectified Current		I _{F(AV)}	1.0			A
Peak Forward Surge Current, 8.3ms Single Half-Sine-Wave Superimposed on Rate Load		I _{FSM}	30			A
Maximum Forward Voltage at I _F =1.0A		V _F	0.875	1.25		V
Maximum Reverse Current at Rated DC Blocking Voltage	T _J =25°C	I _R	5.0		μA	
	T _J =125°C		150			
Diode Junction Capacitance	V _R =4V, f=1MHz	C _J	20		pF	
Maximum Reverse Recovery Time		t _{rr}	25	50		ns
Operating Junction Temperature Range		T _J	-55 ~ +150			°C
Storage Temperature Range		T _{STG}	-65 ~ +175			°C

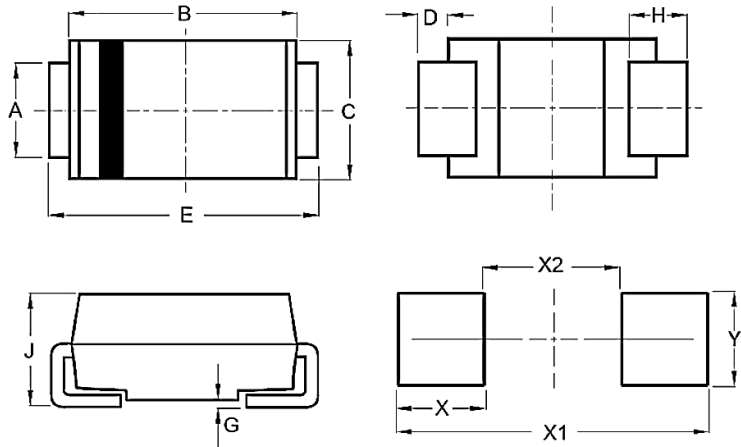
Notes:

1. $T_A=25^{\circ}C$ unless otherwise specified

2. Reverse recovery time test conditions: $I_F=0.5A$, $I_R=1A$, $I_{RR}=0.25A$

DIMENSIONS

Item	Min (mm)	Max (mm)
A	1.800	2.200
B	4.050	4.650
C	3.300	3.940
D	0.152	0.305
E	5.140	5.560
G	--	0.203
H	0.760	1.520
J	2.050	2.450
X	2.500	
X1	6.800	
X2	1.800	
Y	2.300	



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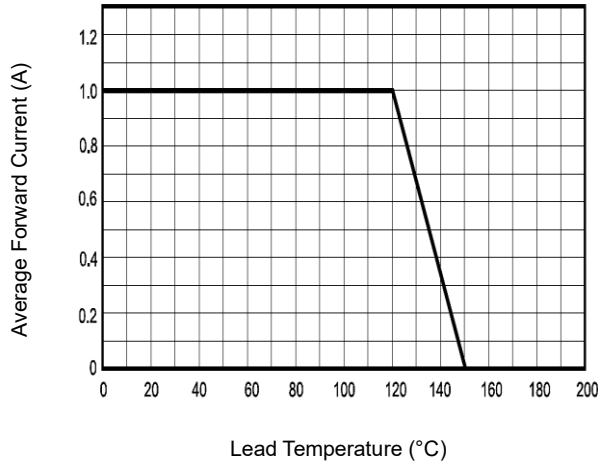
1A 200~600V DO-214AA SMB

MURS1xB Series

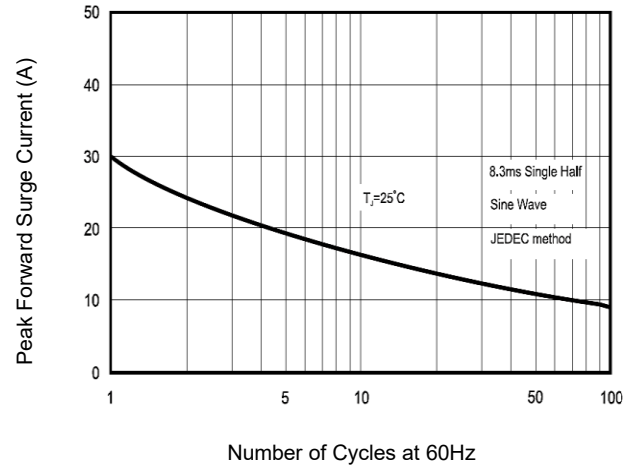
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CHARACTERISTIC CURVES

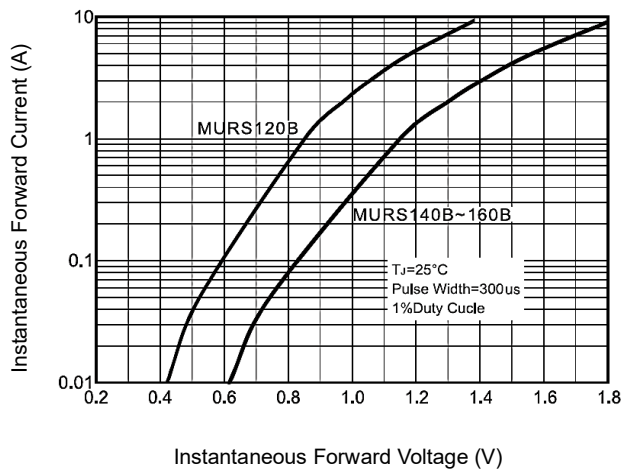
Typical Forward Current Derating Curve



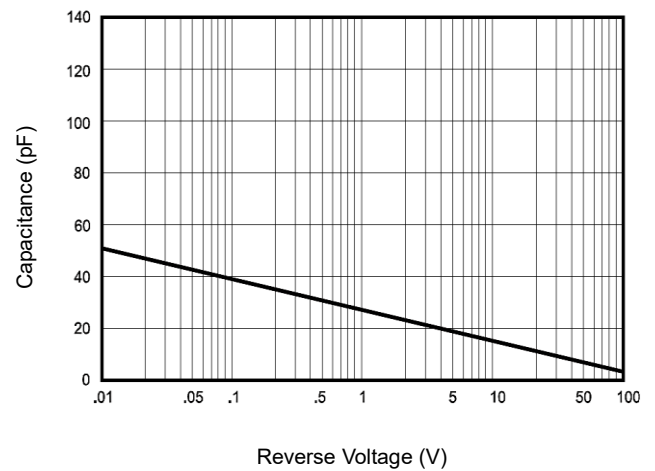
Maximum Non-Repetitive Forward Surge Current



Typical Instantaneous Forward Characteristics



Typical Junction Capacitance



*Specifications subject to change without notice.