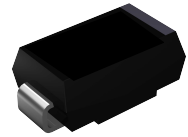


## Features

- ◆ Plastic package has Underwriters Laboratories Flammability Classification 94V-0
- ◆ Ideally suited for use in very high frequency switching power supplies, inverters and as a free wheeling diode
- ◆ Ultrafast recovery time for high efficiency
- ◆ For surface mount applications
- ◆ Glass passivated junction
- ◆ High temperature soldering guaranteed:  
250°C/10Seconds on terminals



Package: DO-214AA (SMB)

## Mechanical Data

- ◆ Case: JEDEC DO-214AA (SMB) molded plastic body
- ◆ Terminals: Solder plated, solderable per MIL-STD-750, Method 2026
- ◆ Polarity: Color band denotes cathode end
- ◆ Weight: 0.003 ounce, 0.093 gram

## Maximum Ratings and Electrical Characteristics

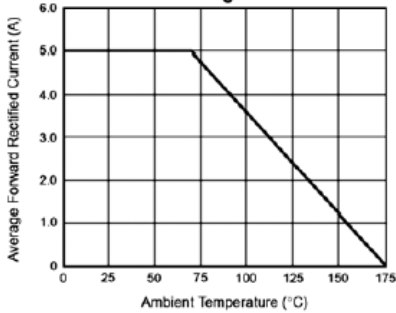
(T<sub>A</sub> = 25°C unless otherwise noted)

Parameter	Symbols	MURS120	Units
Maximum Repetitive Peak Reverse Voltage	V <sub>RRM</sub>	200	Volts
Working Peak Reverse Voltage	V <sub>RWM</sub>	200	Volts
Maximum DC Blocking Voltage	V <sub>DC</sub>	200	Volts
Maximum Average Forward Rectified Current at (See figure 1)	I <sub>F(AV)</sub>	1.0 2.0	Amps
Peak Forward Surge Current (8.3 ms single half sine-wave superimposed on rated load) (JEDEC Method)	I <sub>FSM</sub>	40.0	Amps
Maximum Instantaneous Forward Voltage (Note 1)	V <sub>F</sub>	0.875 0.710	Volts
Maximum Instantaneous Reverse Current At Rated DC Blocking Voltage (Note 1)	I <sub>R</sub>	2.0 200	uA
Maximum Reverse Recovery Time at I <sub>F</sub> =0.5A, I <sub>R</sub> =1.0A, I <sub>tr</sub> =0.25A	t <sub>tr</sub>	25	nS
Maximum Reverse Recovery Time at I <sub>F</sub> =1.0A, di/dt=50A/us, V <sub>R</sub> =30V, I <sub>tr</sub> =10% I <sub>RM</sub>	t <sub>tr</sub>	35	nS
Maximum Forward Recovery Time at I <sub>F</sub> =1.0A, di/dt=100A/us, recovery to 1.0V	t <sub>fr</sub>	25	nS
Typical Thermal Resistance Junction to Ambient	R <sub>θJA</sub>	13	°C/W
Operating Junction and Storage Temperature Range	T <sub>J</sub> , T <sub>STG</sub>	-55 to +175	°C

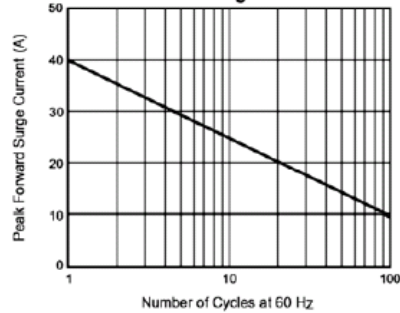
**Notes:** 1. Pulse test: t<sub>p</sub>=300us, duty cycle < 2%

## Ratings and Characteristics Curves ( $T_A = 25^\circ\text{C}$ unless otherwise noted)

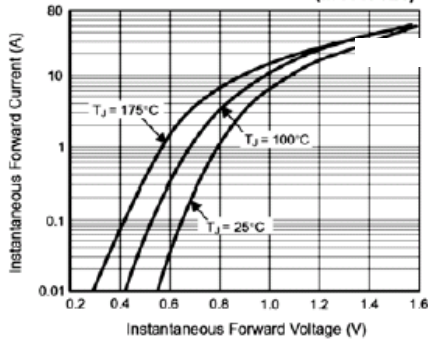
**Fig. 1 – Forward Current Derating Curve**



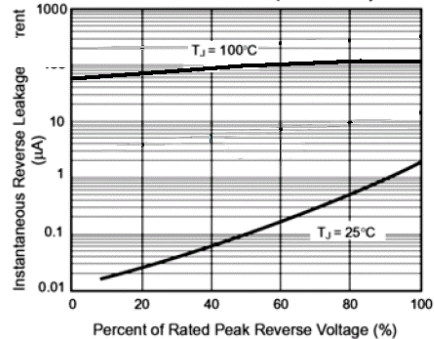
**Fig. 2 – Maximum Non-Repetitive Peak Forward Surge Current**



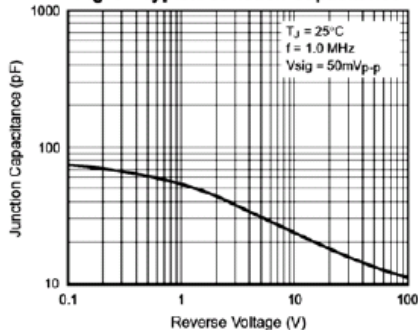
**Fig. 3 – Typical Instantaneous Forward Characteristics (MURS120)**



**Fig. 4 – Typical Reverse Leakage Characteristics (MURS120)**

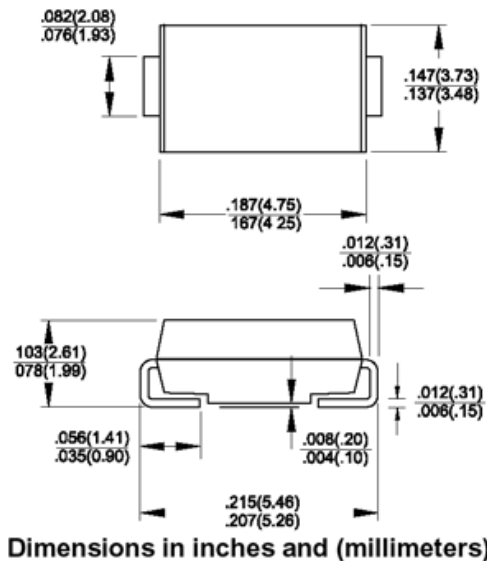


**Fig. 5 – Typical Junction Capacitance**



## Package Outline Dimensions

Package: DO-214AA (SMB)



Dimensions in inches and (millimeters)