



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_A = 25°C unless otherwise noted)

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

Notes: 1. Pulse test: t_p=300µs, duty cycle < 2%

Fig. 1 – Forward Current Derating Curve

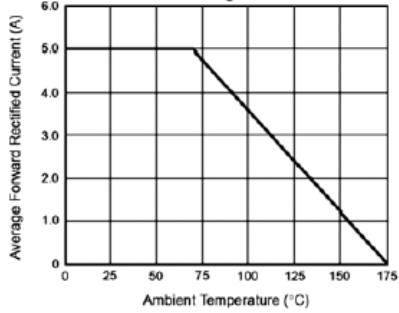


Fig. 2 – Maximum Non-Repetitive Peak Forward Surge Current

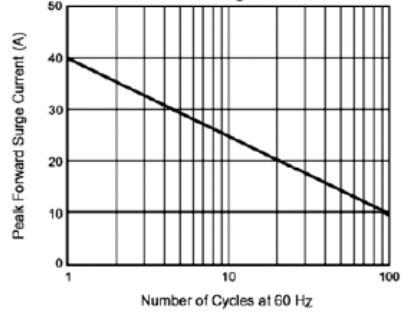


Fig. 3 – Typical Instantaneous Forward Characteristics (MURS120)

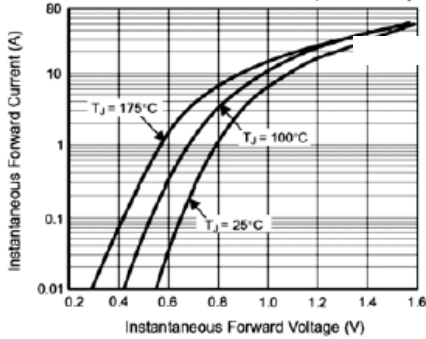


Fig. 4 – Typical Reverse Leakage Characteristics (MURS120)

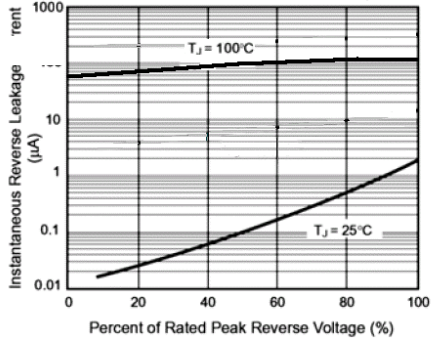
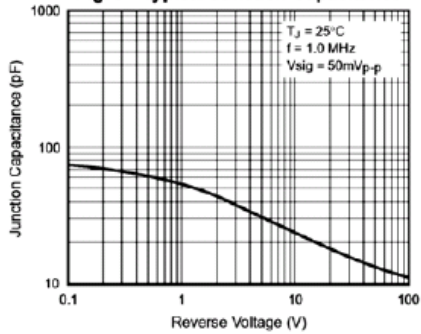
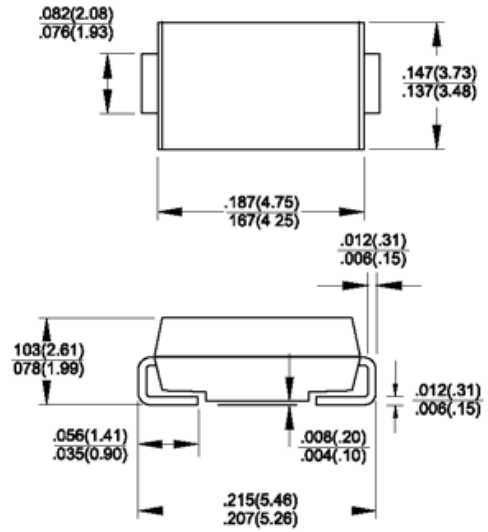


Fig. 5 – Typical Junction Capacitance



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Dimensions in inches and (millimeters)