

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
- ◆ Excellent high temperature switching
- ◆ Glass passivated junction



Mechanical Data

DO-204AC(DO-15)

- ◆ Cases: JEDEC DO-204AC(DO-15), molded plastic body over passivated chip
- ◆ Terminals: Axial leads, solderable per MIL-STD-750, Method 2026
High temperature soldering guaranteed:
250°C/10Seconds, 0.375" (9.5mm) lead length at 5 lbs. (2.3Kg) tension
- ◆ Polarity: Color band denotes cathode end
- ◆ Mounting position: Any
- ◆ Weight: 0.015 ounce, 0.4 gram

Maximum Ratings and Electrical Characteristics

(T_A = 25°C unless otherwise noted)

Parameter	Symbols	MUR120	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, T _A =130°C	I _{F(AV)}	1.0	Amp
Peak Forward Surge Current (8.3ms single half sine-wave superimposed on rated load)	I _{FSM}	35.0	Amps
Maximum Instantaneous Forward Voltage (Note 1)	V _F	0.875 0.710	Volts
1.0A, T _J =25°C 1.0A, T _J =150°C			
Maximum Instantaneous Reverse Current at Rated DC Blocking Voltage (Note 1)	I _R	2.0 50	μA μA
T _J =25°C T _J =150°C			
Maximum Reverse Recovery Time at I _F =0.5A, I _R =1.0A, I _{tr} =0.25A	t _{tr}	25	nS
Maximum Reverse Recovery Time at I _F =1.0A, di/dt=50A/μs, V _R =30V, I _{tr} =10% I _{SM}	t _{tr}	35	nS
Maximum Forward Recovery Time at I _F =1.0A, di/dt=100A/μs, I _{tr} to 1.0V	t _{fr}	25	nS
Typical Thermal Resistance Junction to Ambient (Note 2)	R _{θJA}	27	°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%
 2. Lead length = 3/8" on P.C. Board with 1.5" x 1.5" copper surface

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

Fig. 1 – Forward Current Derating Curve

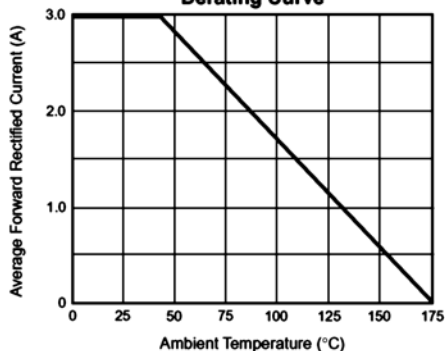


Fig. 2 – Maximum Non-Repetitive Peak Forward Surge Current

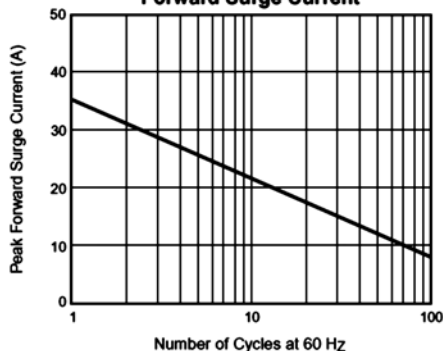


Fig. 3 – Typical Instantaneous Forward Characteristics (MUR120)

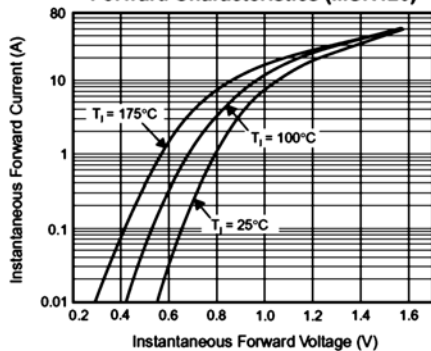


Fig. 4 – Typical Reverse Leakage Characteristics (MUR120)

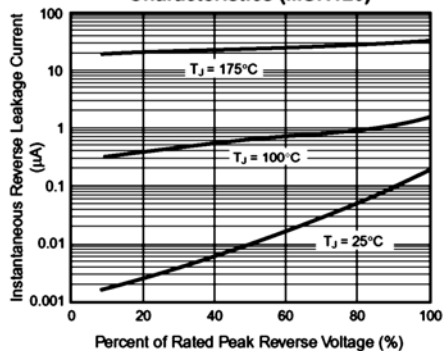
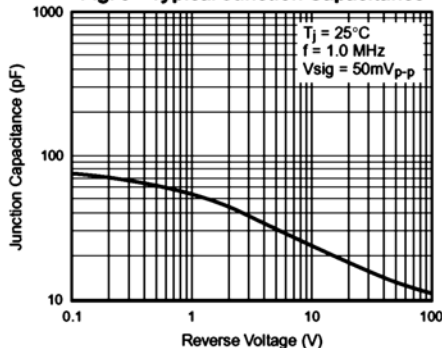
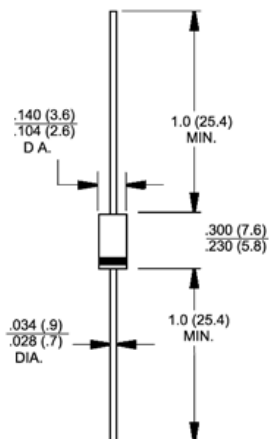


Fig. 5 – Typical Junction Capacitance



Package Outline Dimensions

DO-204AC(DO-15)



Dimensions in inches and (millimeters)