

# MUR120S

**PRV : 200 Volts**  
**Io : 1.0 Ampere**

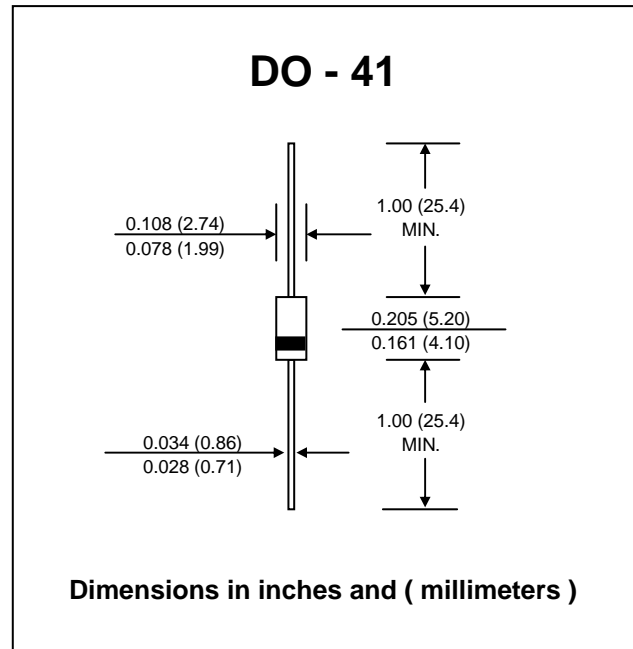
**FEATURES :**

- \* High surge current capability
- \* High reliability
- \* Low reverse current
- \* Low forward voltage drop
- \* **Pb / RoHS Free**

**MECHANICAL DATA :**

- \* Case : DO-41 Molded plastic
- \* Epoxy : UL94V-O rate flame retardant
- \* Lead : Axial lead solderable per MIL-STD-202, Method 208 guaranteed
- \* Polarity : Color band denotes cathode end
- \* Mounting position : Any
- \* Weight : 0.339 gram

## ULTRAFAST RECTIFIERS



### MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Rating at 25 °C ambient temperature unless otherwise specified.

Single phase, half wave, 60 Hz, resistive or inductive load.

For capacitive load, derate current by 20%.

RATING	SYMBOL	VALUE	UNIT
Maximum Repetitive Peak Reverse Voltage	$V_{RRM}$	200	V
Maximum Working Reverse Voltage	$V_{RWM}$	200	V
Maximum DC Blocking Voltage	$V_{DC}$	200	V
Maximum Average Forward Current , See Fig. 2	$I_{F(AV)}$	1.0	A
Non-repetitive Peak Forward Surge Current	$I_{FSM}$	35	A
Maximum Forward Voltage at $I_F = 1$ Amp. (Note 1)	$V_F$	0.95	V
Maximum Reverse Current at $T_J = 25\text{ }^\circ\text{C}$	$I_R$	2.0	$\mu\text{A}$
Rated DC Blocking Voltage $T_J = 125\text{ }^\circ\text{C}$	$I_{R(H)}$	50	$\mu\text{A}$
Maximum Reverse Recovery Time ( Note 2 )	$T_{rr}$	35	ns
Junction Temperature Range	$T_J$	- 65 to + 175	$^\circ\text{C}$
Storage Temperature Range	$T_{STG}$	- 65 to + 175	$^\circ\text{C}$

**Notes :**

(1) Pulse Test : Pulse Width = 300  $\mu\text{s}$ , Duty Cycle  $\leq 2.0\%$

(2) Reverse Recovery Test Conditions :  $I_F = 0.5\text{A}$ ,  $I_R = 1\text{A}$  ;  $I_{rr} = 0.25\text{A}$

## RATING AND CHARACTERISTIC CURVES ( MUR120S )

FIG.1 - REVERSE RECOVERY TIME CHARACTERISTIC AND TEST CIRCUIT DIAGRAM

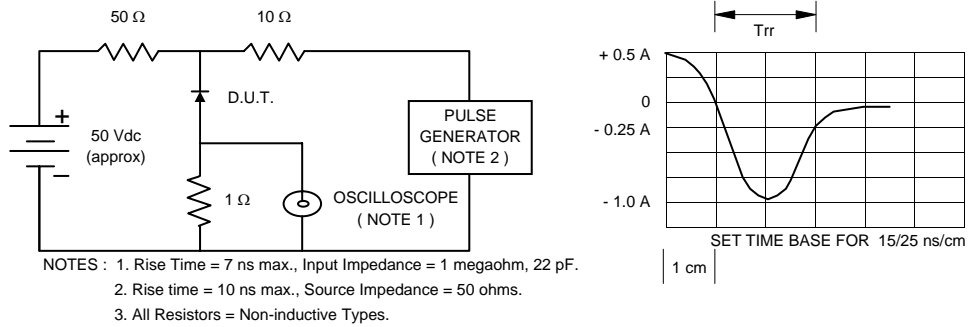


FIG. 2 - DERATING CURVE FOR OUTPUT RECTIFIED CURRENT

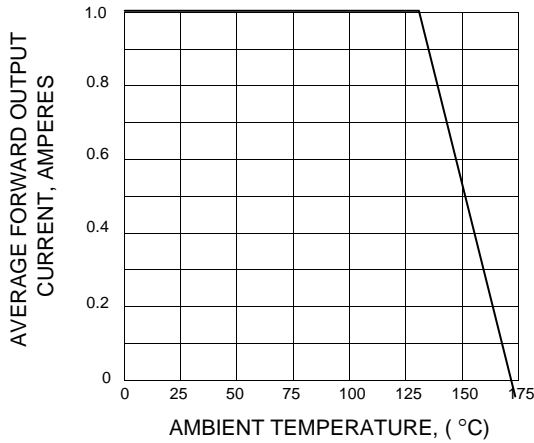


FIG. 3 - MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

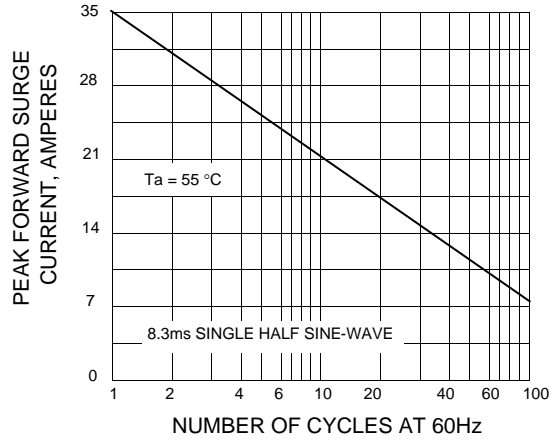


FIG. 4 - TYPICAL FORWARD CHARACTERISTICS

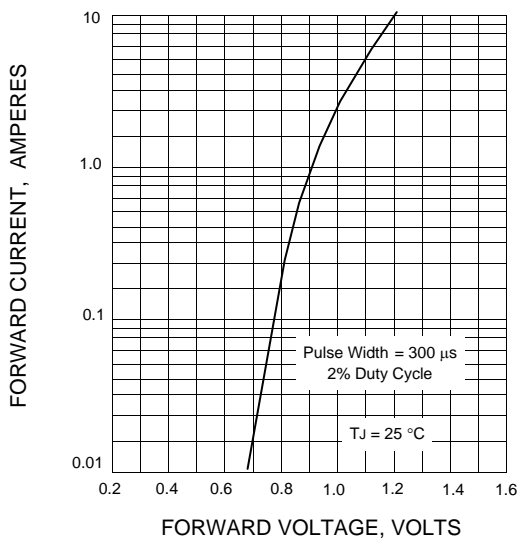


FIG. 5 - TYPICAL REVERSE CHARACTERISTICS

