

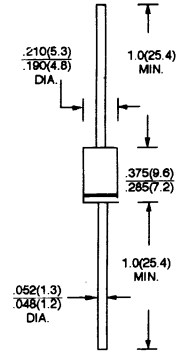


MUR405 THRU MUR460

4.0 AMP. ULTRA FAST RECTIFIERS

VOLTAGE RANGE
50 to 600 Volts
CURRENT
4.0 Amperes

DO-201AD



Dimensions in inches and (millimeters)

FEATURES

- * Low forward voltage drop
- * High current capability
- * High reliability
- * High surge current capability
- * Ultra fast 25, 50 Nanosecond Recovery Times

MECHANICAL DATA

- * Case: Molded plastic
- * Epoxy: UL 94V - 0 rate flame retardant
- * Lead and Mounting Surface Temperature for soldering Purposes 220°C Max for 10 Seconds
1/16" from case
- * Polarity: Color band denotes cathode end
- * Mounting Position: Any
- * Weight: 1.18 grams

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%

TYPE NUMBER	SYMBOLS	MUR 405	MUR 410	MUR 415	MUR 420	MUR 440	MUR 460	UNITS
Maximum Recurrent Peak Reverse Voltage	V_{RRM}	50	100	150	200	400	600	
Maximum RMS Voltage	V_{RMS}	35	70	105	140	280	420	V
Maximum D. C Blocking Voltage	V_{DC}	50	100	150	200	400	600	V
Maximum Average Forward Rectified Current See fig. 1	$I_{F(AV)}$	4.0 @ $T_A = 80^\circ C$			4.0 @ $T_A = 40^\circ C$			A
Peak Forward Surge Current, 8.3 ms single half sine - wave superimposed on rated load (JEDEC method)	I_{FSM}	125			70			A
Maximum Instantaneous Forward Voltage 4.0A @ $T_J = 25^\circ C$ (Note 1)	V_F	1.0			1.28			V
Maximum D. C Reverse Current @ $T_A = 25^\circ C$ At Rated D. C Blocking Voltage @ $T_A = 150^\circ C$	I_R	5.0 150			10 250			μA μA
Maximum Reverse Recovery Time (Note 2)	T_{RR}	25			50			nS
Typical Junction Capacitance (Note 3)	C_J				65			pF
Typical Thermal Resistance Junction to Ambient (Note 4)	$R_{\theta JA}$				28			$^\circ C/W$
Operation Temperature Range	T_J, T_{STG}				- 65 to + 150			$^\circ C$

- NOTES: 1. Pulse test: $t_p = 300 \mu s$, duty cycle $\leq 2\%$
 2. Reverse Recovery Test Conditions: $I_F = 0.5A$, $I_R = 1.0A$, $I_{RR} = 0.25A$.
 3. Measured at 1 MHz and applied reverse voltage of 4.0V D. C.
 4. Lead length = 1/2" on P. C. Board with 1.5" x 1.5" copper surface

RATINGS AND CHARACTERISTIC CURVES

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FIG. 1 - FORWARD CURRENT DERATING CURVE

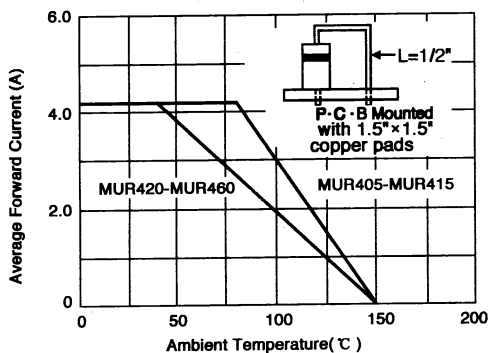


FIG. 4 - TYPICAL FORWARD VOLTAGE

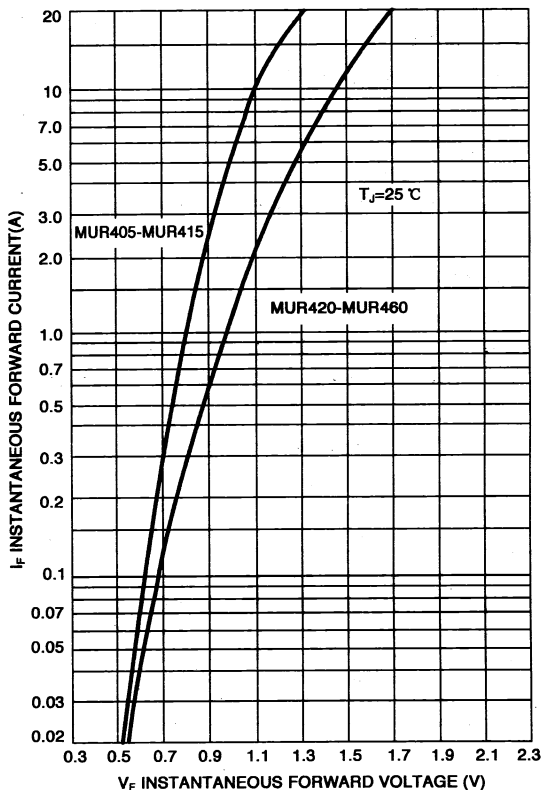


FIG. 2 - TYPICAL REVERSE LEAKAGE CHARACTERISTICS

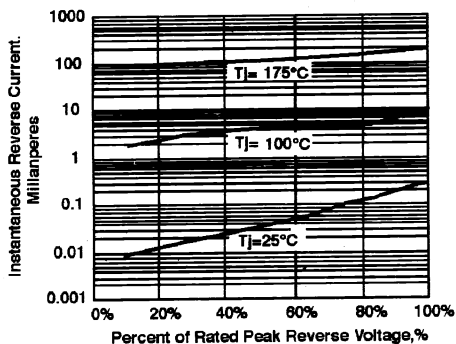


FIG. 3 - TYPICAL JUNCTION CAPACITANCE - PER LEG

