JGD

MUR105 THRU MUR160

1.0 AMP. ULTRA FAST RECTIFIERS

VOLTAGE RANGE
50 to 1000 Volts
CURRENT
1.0 Ampere

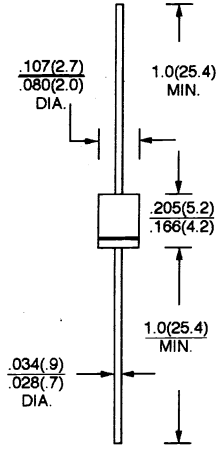
FEATURES

* Low forward voltage drop
* High current capability
* High reliability
* High surge current capability
* Ultra fast 25,50,75 Nanosecond Recovery Times

MECHANICAL DATA

* Case: Molded plastic
* Epoxy: UL 94V-0 rate flame retardant
* Lead: and Mounting Surface Temperature for soldering Purposes 220℃ Max for 10 Seconds 1/16″ from case
* Polarity: Color band denotes cathode end
* Mounting Position: Any
* Weight: 0.34 grams

DO-41



Dimensions in inches and(milimeters)

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Rating at 25℃ ambient temperature unless otherwise specified.
Single phase, half wave, 60 H_Z, resistive or inductive load.
For capacitive load, derate current by 20%

TYPE NUMBER	SYMBOLS	MUR 105	MUR 110	MUR 115	MUR 120	MUR 130	MUR 140	MUR 160	UNITS
Maximum Recurrent Peak Reverse Voltage	V_{RRM}	50	100	150	200	300	400	600	
Maximum RMS Voltage	V_{RMS}	35	70	105	140	210	280	420	V
Maximum D.C Blocking Voltage	V_{DC}	105	100	150	200	300	400	600	V
Maximum Average Forward Rectified Current Seefig. 1	$I_{F(AV)}$	1.0 @T_A = 110℃			1.0 @T_A = 100℃				A
Peak Forward Surge Current, 8.3 ms single half sine-wave superimposed on rated load(JEDEC method)	I_{FSM}	35							A
Maximum Instantaneous Forward Voltage 1.0A(Note 1)	V_F	0.975			1.25				V
Maximum D.C Reverse Current @T_A = 25℃ At Rated D.C Blocking Voltage @T_A = 100℃	I_R	2.0 50			5.0 150				μA μA
Maximum Reverse Recovery Time(Note 2)	T_{RR}	25			50				nS
Typical Junction Capacitance (Note 3)	C_J	25							pF
Typical Thermal Resistance Junction to Ambient(Note 4)	$R_{\theta JA}$	50							℃/W
Operating and Storage Temperature Range	T_J, T_{STG}	-65 to +150							℃

NOTES: 1. Pulse test: t_p = 300μs, duty cycle ≤ 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 = 3/8″ on P.C. Board with 1.5″ × 1.5″ copper surface

RATINGS AND CHARACTERISTIC CURVES

MUR105 THRU MUR160

FIG.1 – FORWARD CURRENT DERATING CURVE

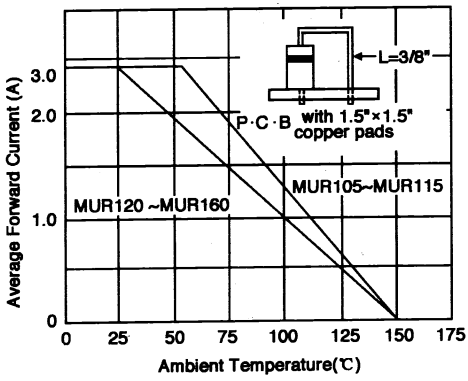


FIG.2 – TYPICAL REVERSE LEAKAGE CHARCTERISTICS

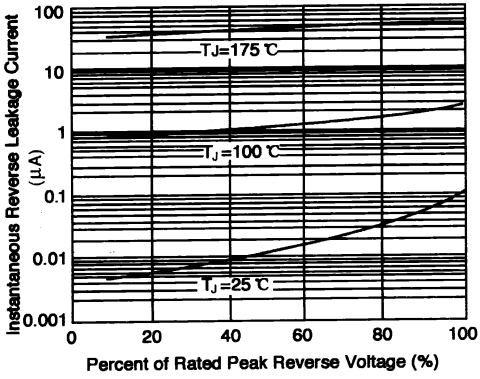


FIG.3 – TYPICAL JUNCTION CAPACITANCE

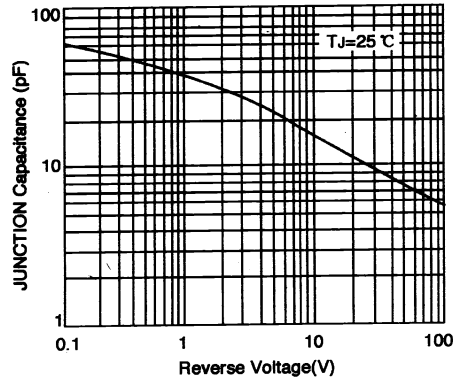
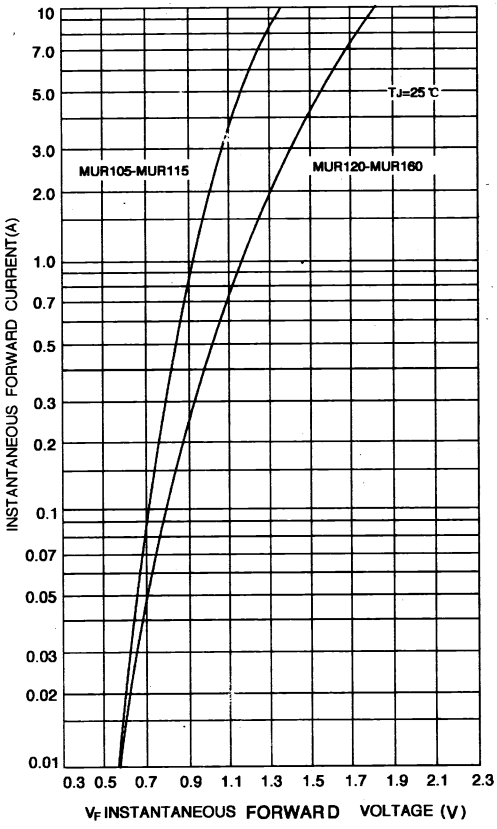


FIG.4 – TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS



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