

MUR1020 THRU MUR1060

10.0 AMP SURFACE MOUNT SUPER FAST RECTIFIERS



■ Features

- Low forward voltage drop.
- Excellent high temperature stability.
- Fast switching capability.
- Suffix "G" indicates Halogen-free part, ex.CP10S45SG.
- Lead-free parts meet environmental standards of MIL-STD-19500 /228

■ Mechanical data

- Epoxy : UL94-V0 rated flame retardant.
- Case : Molded plastic, TO-277.
- Lead : Solder plated, solderable per MIL-STD-750, Method 2026.
- Polarity: Indicated by cathode band.
- Mounting Position : Any.
- Weight : Approximated 0.093 grams.

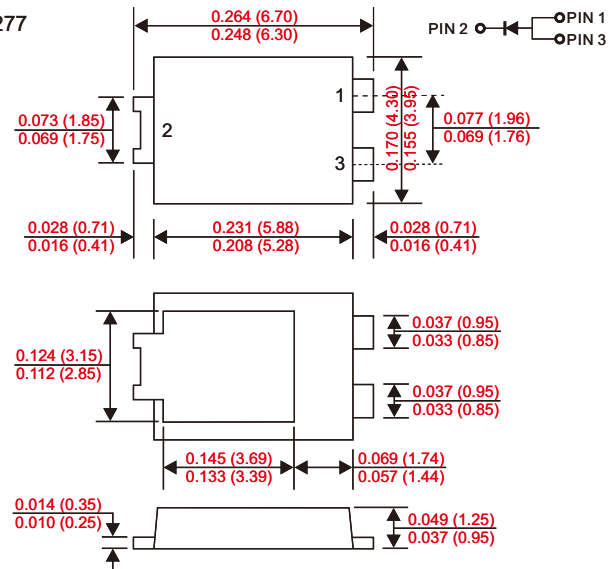
VOLTAGE RANGE

200 to 600 Volts

CURRENT

10.0 Ampere

TO-277



MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

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

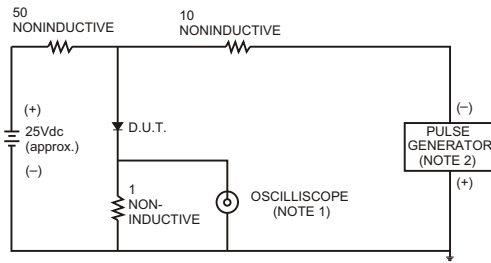
TYPE NUMBER	MUR1020	MUR1040	MUR1060	UNITS
Maximum Recurrent Peak Reverse Voltage	200	400	600	V
Maximum RMS Voltage	140	280	420	V
Maximum DC Blocking Voltage	200	400	600	V
Maximum Average Forward Rectified Current at T _L =100°C	10.0			A
Peak Forward Surge Current, 8.3 ms single half sine-wave superimposed on rated load (JEDEC method)	175			A
Maximum Instantaneous Forward Voltage at 10.0A	1.0	1.25	1.75	V
Maximum DC Reverse Current Ta=25°C	5.0			μA
at Rated DC Blocking Voltage Ta=100°C	150			μA
Maximum Reverse Recovery Time (Note 1)	35			nS
Typical Junction Capacitance (Note 2)	95			pF
Operating and Storage Temperature Range T _J , T _{stg}	-65 — +150			°C

NOTES:

1. Reverse Recovery Time test condition: IF=0.5A, IR=1.0A, IRR=0.25A
2. Measured at 1MHz and applied reverse voltage of 4.0V D.C.

RATING AND CHARACTERISTIC CURVES (MUR1020 THRU MUR1060)

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



NOTES: 1. Rise Time= 7ns max., Input Impedance= 1 megohm.22pF.
2. Rise Time= 10ns max., Source Impedance= 50 ohms.

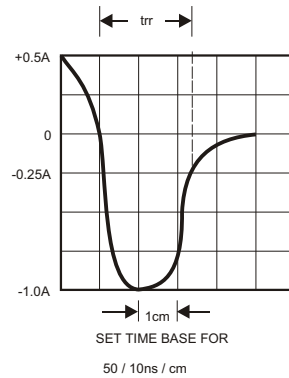


FIG.2-TYPICAL FORWARD CURRENT DERATING CURVE

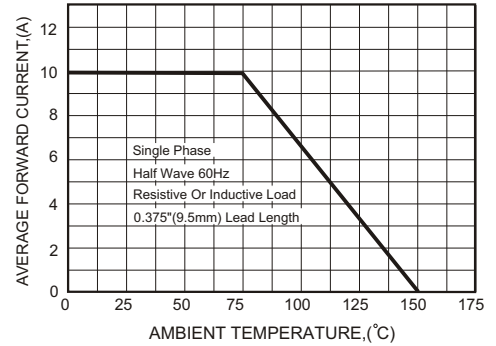


FIG.3-TYPICAL FORWARD CHARACTERISTICS

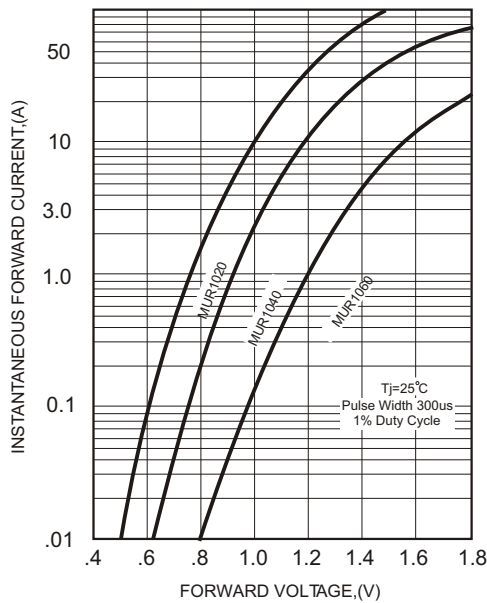


FIG.4-TYPICAL REVERSE CHARACTERISTICS

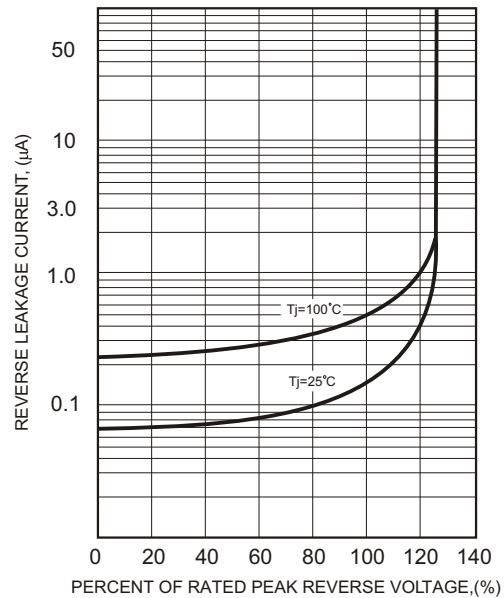


FIG.5-MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

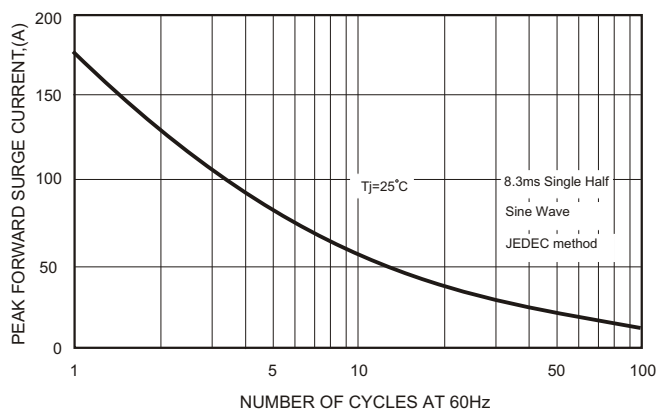


FIG.6-TYPICAL JUNCTION CAPACITANCE

