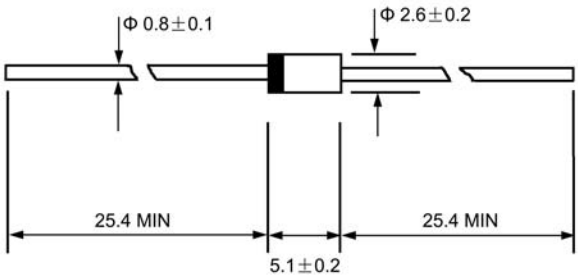
MUR120-MUR190

Super Fast Rectifiers

VOLTAGE RANGE: 200 --- 900 V
CURRENT: 1.0 A

DO - 41



Dimensions in millimeters

Features

- ◇ Low cost
- ◇ Low leakage
- ◇ Low forward voltage drop
- ◇ High current capability
- ◇ Easily cleaned with alcohol,Isopropanol and similar solvents
- ◇ The plastic material carries U/L recognition 94V-0

Mechanical Data

- ◇ Case:JEDEC DO--41,molded plastic
- ◇ Polarity: Color band denotes cathode
- ◇ Weight: 0.012 ounces,0.34 grams
- ◇ Mounting position: Any

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25℃ ambient temperature unless otherwise specified.

Single phase,half wave,60 Hz,resistive or inductive load. For capacitive load,derate by 20%.

		MUR 120	MUR 130	MUR 140	MUR 150	MUR 160	MUR 170	MUR 180	MUR 190	UNITS
Maximum recurrent peak reverse voltage	V_{RRM}	200	300	400	500	600	700	800	900	V
Maximum RMS voltage	V_{RMS}	140	210	280	350	420	490	560	630	V
Maximum DC blocking voltage	V_{DC}	200	300	400	500	600	700	800	900	V
Maximum average forw ard rectified current 9.5mm lead length, @T_A=75℃	$I_{F(AV)}$	1.0								A
Peak forw ard surge current 8.3ms single half-sine-w ave superimposed on rated load @T_J=125℃	I_{FSM}	35.0								A
Maximum instantaneous forw ard voltage @ 1.0A	V_F	0.875	1.25					1.7		V
Maximum reverse current @T_A=25℃	I_R	2.0	5.0					10.0		μA
at rated DC blocking voltage @T_A=100℃		50	150					100		
Maximum reverse recovery time (Note1)	t_{rr}	25	50					75		ns
Typical junction capacitance (Note2)	C_J	22						15		pF
Typical thermal resistance (Note3)	$R_{\theta JA}$	50						60		℃/W
Operating junction temperature range	T_J	- 55 ----- + 150								℃
Storage temperature range	T_{STG}	- 55 ----- + 150								℃

NOTE: 1. Measured with I_F=0.5A, I_R=1A, I_{rr}=0.25A.
2. Measured at 1.0MHz and applied reverse voltage of 4.0V DC.
3. Thermal resistance from junction to ambient.

MUR120-MUR190

Super Fast Rectifiers

Ratings AND Charactieristic Curves

FIG.1 – TYPICAL FORWARD CHARACTERISTICS

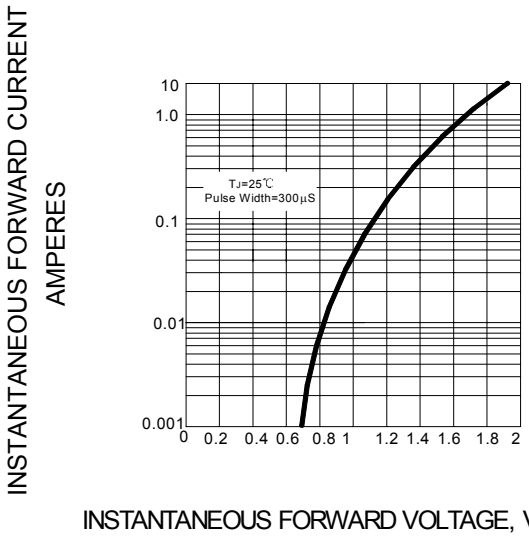


FIG.2 – FORWARD DRATING CURVE

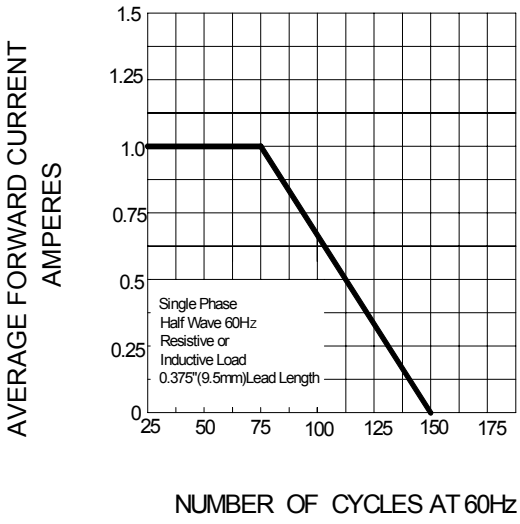
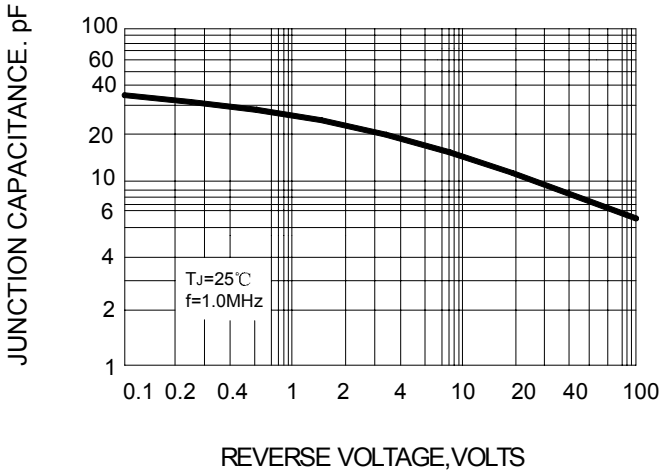


FIG.3 – TYPICAL JUNCTION CAPACITANCE



MUR120-MUR190

Super Fast Rectifiers

Ratings AND Charactieristic Curves

FIG.4 – TYPICAL REVERSE CHARACTERISTICS

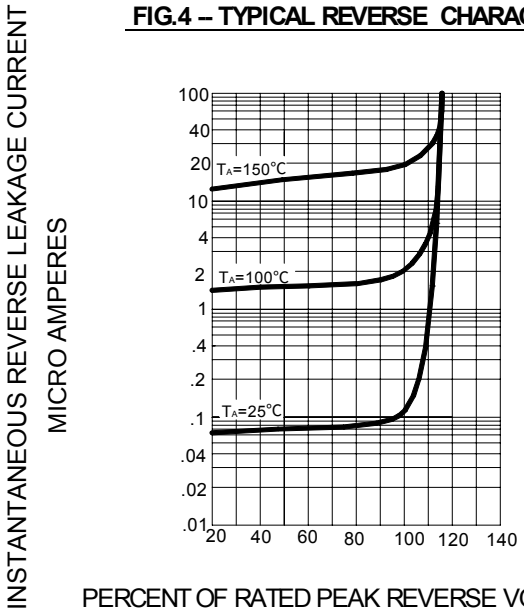


FIG.5 – PEAK FORWARD SURGE CURRENT

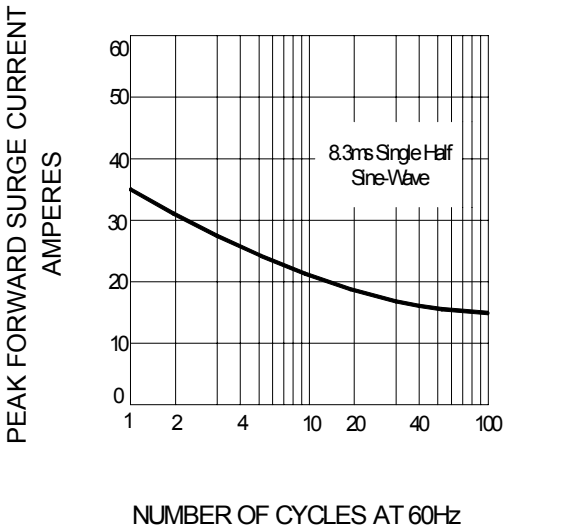
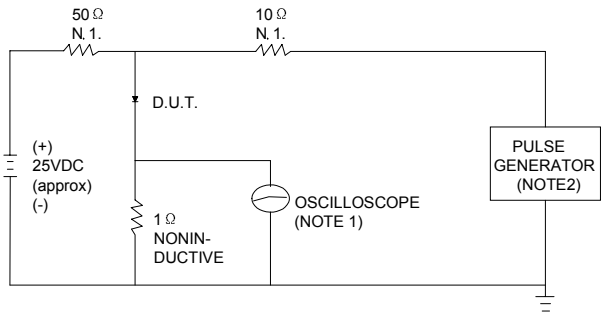
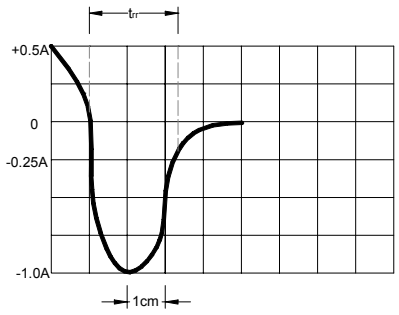


FIG.6 – TEST CIRCUIT DIAGRAM AND REVERSE RECOVERY TIME CHARACTERISTIC





NOTES:1.RISE TIME = 7ns MAX.INPUT IMPEDANCE = 1MΩ.22pF.
2.RISE TIME =10ns MAX.SOURCE IMPEDANCE=50 Ω.

SET TIME BASE FOR 10/20 ns/cm