Efficient Fast Rectifier Diode

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MUR160

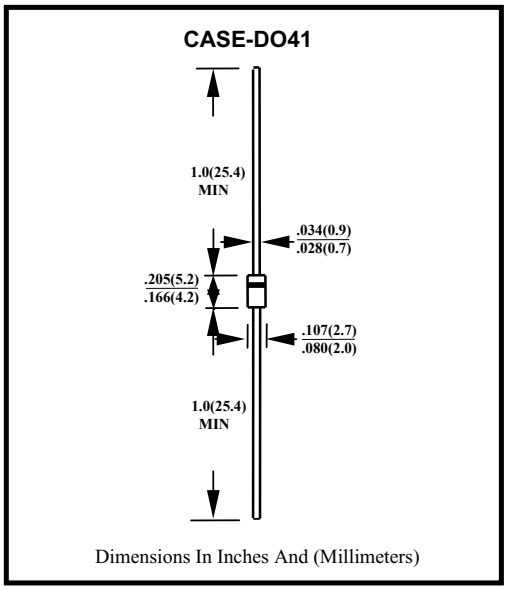
Voltage: 600 Volts
Current: 1.0 A

Features

- Low power loss, high efficiency
- Low Leakage
- Low Forward Voltage Drop
- Hgh Current Capability
- High Speed Switching
- High Reliability
- High Current Surge
- Glass Passivated Chip Junction

Mechanical data

- Case:GMolded Plastic
- Epoxy: GUl 94v-0 Rate Flame Retardant
- Lead: GMil-Std-202e Method 208c Guaranteed
- Mounting Position: GAny



Dimensions In Inches And (Millimeters)

Maximum Ratings and Electrical Characterics

RATINGS	SYMBOL	MUR160	UNITS
MAXIMUM RECURRENT PEAK REVERSE VOLTAGE	V_{RRM}	600	V
MAXIMUM RMS VOLTAGE	V_{RMS}	420	V
MAXIMUM DC BLOCKING VOLTAGE	V_{DC}	600	V
MAXIMUM AVERAGE FORWARD RECTIFIED CURRENT .375" (9.5mm) LEAD LENGTH AT TA=55°C	I_O	1	A
PEAK FORWARD SURGE CURRENT, 8.3ms SINGLE HALF SINE-WAVE SUPERIMPOSED ON RATED LOAD	I_{FSM}	35	A
TYPICAL JUNCTION CAPACITANCE (NOTE 1)	C_J	20	PF
TYPICAL THERMAL RESISTANCE (NOTE 2)	R_{qja}	15	°C/W
STORAGE TEMPERATURE RANGE	T_{STG}	- 55 TO + 150	°C
OPERATING TEMPERATURE RANGE	T_{OP}	- 55 TO + 150	°C

ELECTRICAL CHARACTERISTICS (A_T T_A =25°C UNLESS OTHERWISE NOTED)

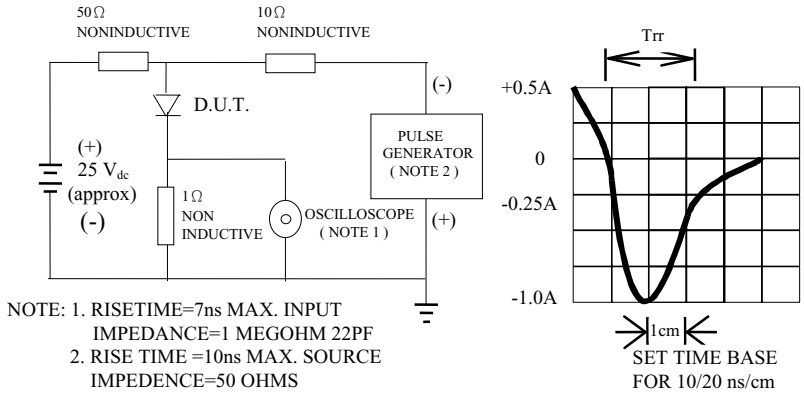
CHARACTERISTICS	SYMBOL	MUR160	UNITS
MAXIMUM FORWARD VOLTAGE AT I_O DC	V_F	1.25	V
MAXIMUM REVERSE CURRENT AT 25°C	I_R	5	mA
MAXIMUM REVERSE CURRENT AT 100°C	I_R	250	mA
MAXIMUM REVERSE RECOVERY TIME (NOTE 3)	T_{RR}	50	nS

NOTE:

1. MEASURED AT 1 MHZ AND APPLIED REVERSE VOLTAGE 0 F 4.0 VOLTS
2. BOTH LEADS ATTATCHED TO HEAT SINK 20×20×1t(mm) COPPER PLATE AT LEAD LENT H 5mm
3. REVERSE RECOVERY TEST CONDITIONS: IF=0.5A, IR=1.0A, IRR=0.25A

Rating and Characteristic Curves (MUR160)

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



NOTE: 1. RISETIME=7ns MAX. INPUT IMPEDANCE=1 MEGOHM 22PF
2. RISE TIME =10ns MAX. SOURCE IMPEDENCE=50 OHMS

FIG. 2-TYPICAL FORWARD CURRENT DERATING CURVE

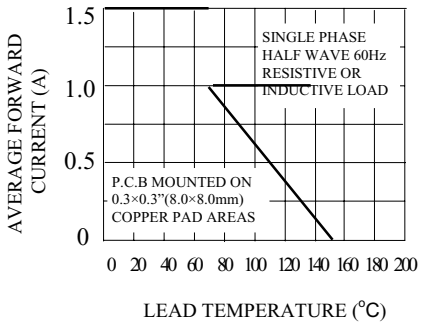


FIG. 3-TYPICAL REVERSE CHARACTERISTICS

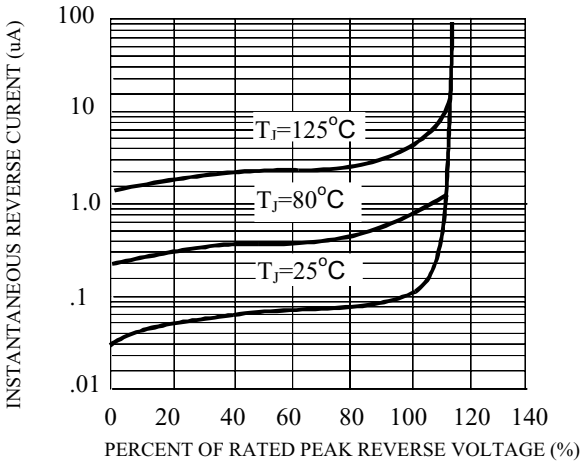


FIG. 4-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

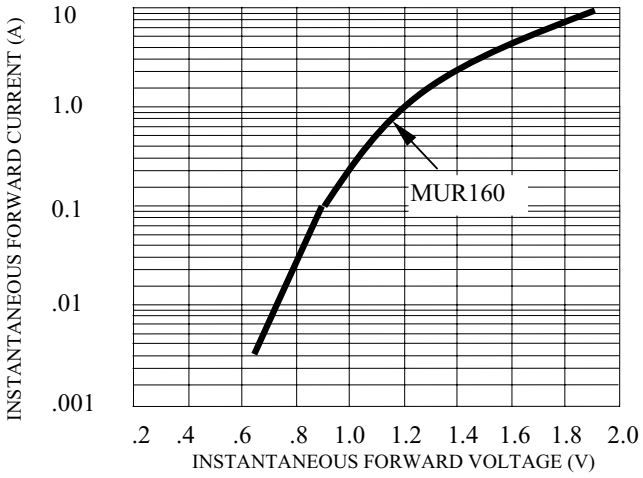


FIG. 5-MAXIMUN NON-REPETITIVE FORWARD SURGE CURRENT

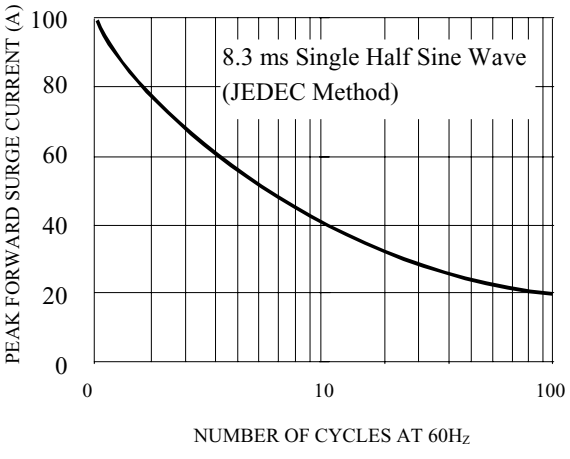


FIG. 6-TYPICAL JUNCTION CAPACITANCE