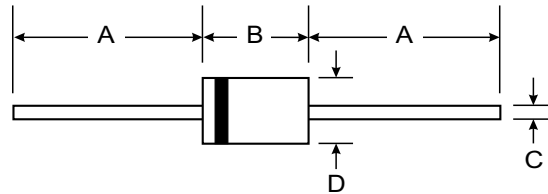


Features

- Low cost
- Diffused junction
- Low leakage
- Low forward voltage drop
- High current capability
- Easily cleaned with Freon, Alcohol, Isopropand and similar solvents



Mechanical Data

- Case: JEDEC DO-41, molded plastic
- Terminals: Axial lead, solderable per MIL-STD-202, Method 208
- Polarity: Color band denotes cathode
- Weight: 0.012 ounces, 0.34 grams
- Mounting position: Any

DO-41		
Dim	Min	Max
A	25.40	—
B	4.06	5.21
C	0.71	0.864
D	2.00	2.72
All Dimensions in mm		

Maximum Ratings and Electrical Characteristics @ $T_A = 25^\circ\text{C}$ unless otherwise specified

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

		MUR170	MUR180	MUR190	MUR1100	UNITS
Maximum recurrent peak reverse voltage	V_{RRM}	700	800	900	1000	V
Maximum RMS voltage	V_{RMS}	490	560	630	700	V
Maximum DC blocking voltage	V_{DC}	700	800	900	1000	V
Maximum average forward rectified current 9.5mm lead length, @ $T_A = 75^\circ\text{C}$	$I_{F(AV)}$	1.0				A
Peak forward surge current 10ms single half-sine-wave superimposed on rated load @ $T_J = 125^\circ\text{C}$	I_{FSM}	30.0				A
Maximum instantaneous forward voltage @ 1.0A	V_F	1.7				V
Maximum reverse current @ $T_A = 25^\circ\text{C}$ at rated DC blocking voltage @ $T_A = 100^\circ\text{C}$	I_R	10.0 100.0				μA
Maximum reverse recovery time (Note1)	t_{rr}	75				ns
Typical junction capacitance (Note2)	C_J	15				pF
Typical thermal resistance (Note3)	$R_{\theta JA}$	60				$^\circ\text{C}/\text{W}$
Operating junction temperature range	T_J	- 55 ----- + 150				$^\circ\text{C}$
Storage temperature range	T_{STG}	- 55 ----- + 150				$^\circ\text{C}$

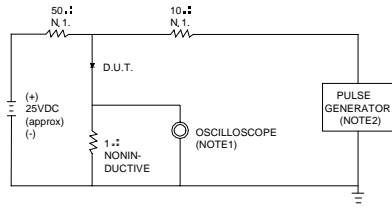
NOTE: 1. Measured with $I_F = 0.5\text{A}$, $I_R = 1\text{A}$, $I_{rr} = 0.25\text{A}$.

2. Measured at 1.0MHz and applied reverse voltage of 4.0V DC.

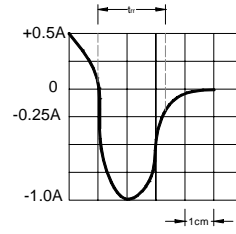
3. Thermal resistance from junction to ambient.



FIG.1 – 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

FIG.2 – TYPICAL FORWARD CHARACTERISTIC

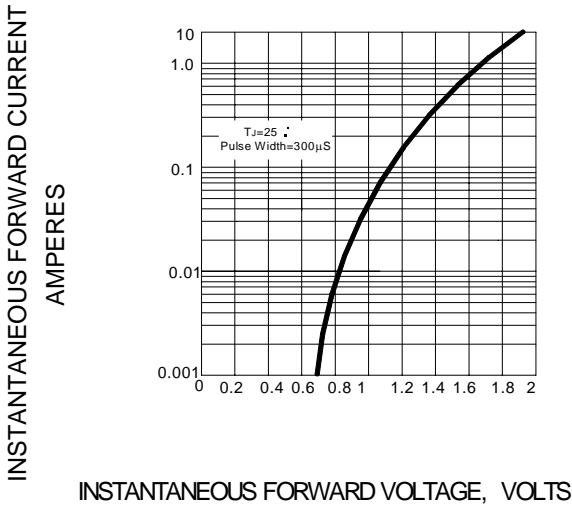


FIG.3 – FORWARD DERATING CURVE

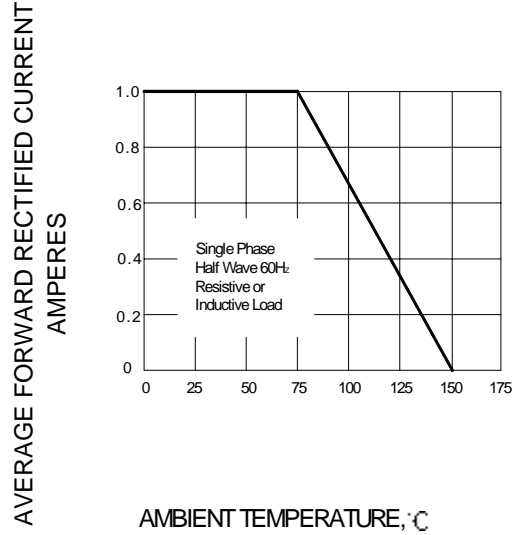


FIG.4 – PEAK FORWARD SURGE CURRENT

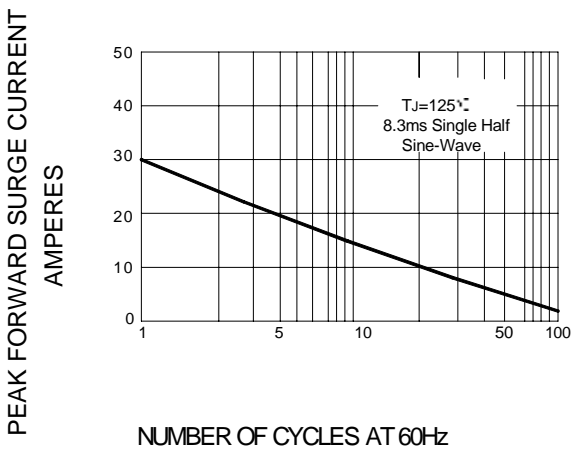


FIG.5 – TYPICAL JUNCTION CAPACITANCE

