

**RoHS
Compliant**



Features:

- High efficiency, Low V_F
- High current capability
- High reliability
- High surge current capability
- Low power loss

Mechanical Data

Case	: Moulded plastic
Lead	: Pure tin plated, lead free, solderable per MIL-STD-202, Method 208 guaranteed
Polarity	: Colour band denotes cathode end
High temperature soldering guaranteed	: 260°C / 10s / 0.375 Inches, (9.5mm) lead lengths at 5 lbs, (2.3kg) tension
Weight	: 0.34 g

Max. Ratings and Electrical Characteristics

Rating at 25°C ambient temperature unless otherwise specified

Single phase, half wave, 60 Hz, resistive or inductive load

For capacitive load, derate current by 20%

Type Number	Symbol	Values	Unit
Maximum Repetitive Peak Reverse Voltage	V_{RRM}	50	V
Maximum RMS Voltage	V_{RMS}	35	
Maximum DC Blocking Voltage	V_{DC}	50	
Maximum Average Forward Rectified Current 0.375 Inches (9.5mm) Lead Length at $T_A = 55^\circ\text{C}$	$I_{(AV)}$	1	A
Peak Forward Surge Current, 8.3 ms Single Half Sine-wave Superimposed on Rated Load	I_{FSM}	30	
Maximum Instantaneous Forward Voltage at 1A	V_F	1.2	V
Maximum Reverse Current at Rated V_R $T_A = 25^\circ\text{C}$ $T_A = 125^\circ\text{C}$	I_R	5 150	μA
Maximum Reverse Recovery Time (Note 1)	T_{RR}	200	nS
Typical Junction Capacitance (Note 2)	C_J	10	pF
Typical Thermal Resistance	$R_{\theta JA}$	65	$^\circ\text{C/W}$
Operating Temperature Range	T_J	-65 to +150	$^\circ\text{C}$
Storage Temperature Range	T_{STG}		$^\circ\text{C}$

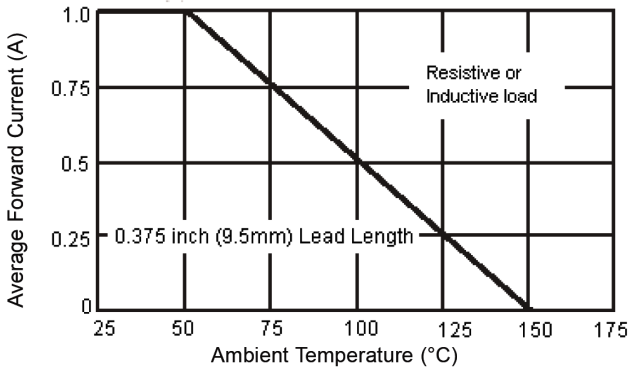
Notes : 1. Reverse Recovery Test Conditions: $I_F = 1.0\text{A}$, $V_R = 30\text{V}$, $di/dt = 50\text{A}/\mu\text{S}$, $I_{rr} = 10\%$ IRM for Measurement of trr.

2. Measured at 1MHz and Applied Reverse Voltage of 4V DC

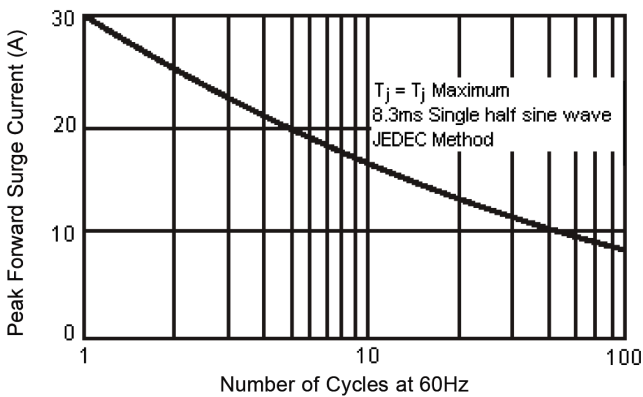
3. Mount on Cu-Pad Size 5mm × 5mm on PCB

Rating and Characteristic Curves

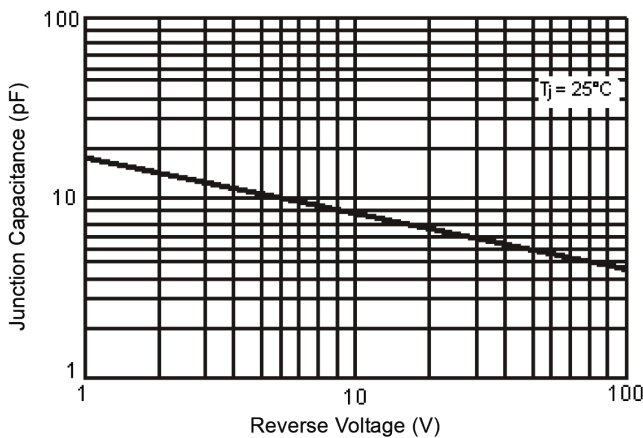
Maximum Forward Current Derating Curve



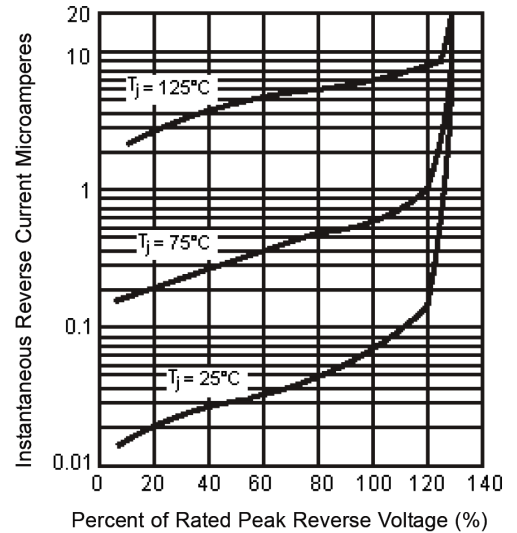
Maximum Non-Repetitive Peak Forward Surge Current



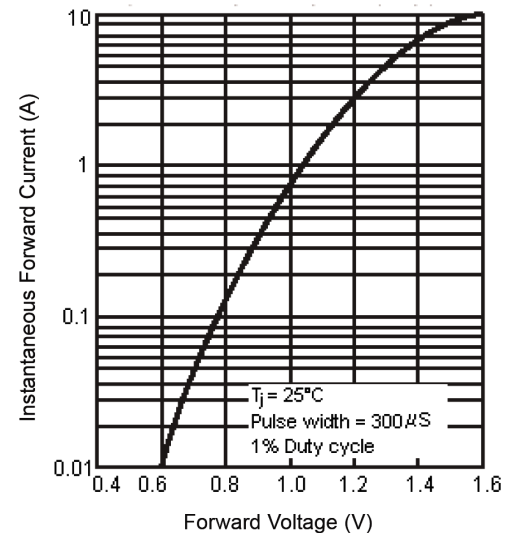
Typical Junction Capacitance



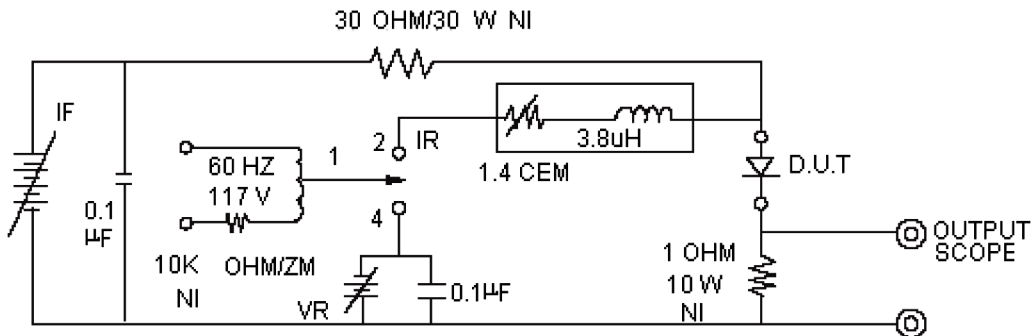
Typical Reverse Characteristics



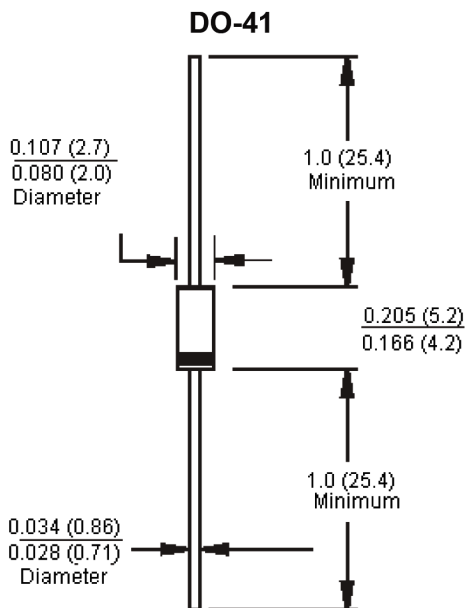
Typical Instantaneous Forward Characteristics



Reverse Recovery Time Characteristic and Test Circuit Diagram



Dimensions:



Dimensions : Inches (Millimetres)

Part Number Table

Description	Part Number
Standard Recovery Diode, 50V, 1A	1N4933+

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