

Features

- Glass passivated chip junctions
- Low reverse leakage current
- Fast switching for high efficiency
- 150°C operating junction temperature
- Low stored charge majority carrier conduction
- Low forward voltage, high current capability
- Plastic material used carries Underwriters Laboratory
- Flammability classification 94V-0

Specifications

Reverse Voltage : 200 Volts

Forward Current : 30 Amperes

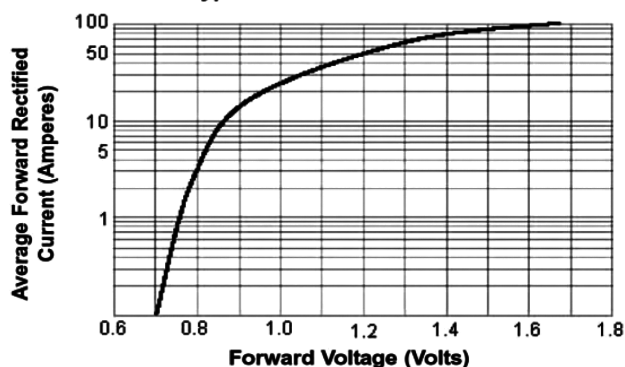
Maximum Ratings

Characteristic	Symbol	Values	Units
Peak Repetitive Reverse Voltage	V_{RRM}	200	V
Working Peak Reverse Voltage	V_{RWM}		
DC Blocking Voltage	V_R		
RMS Reverse Voltage	$V_{R(RMS)}$	140	
Average Rectifier Forward Current	$I_{F(AV)}$	15	A
Total Device (Rated V_R), $T_c = 125^\circ\text{C}$		30	
Peak Repetitive Forward Current (Rate V_R , Square Wave, 20kHz)	I_{FM}	30	
Non-Repetitive Peak Surge Current (Surge applied at rate load conditions half-wave, single phase, 60Hz)	I_{FSM}	300	
Operating and Storage Junction Temperature Range	T_J, T_{STG}	-65 to +150	$^\circ\text{C}$

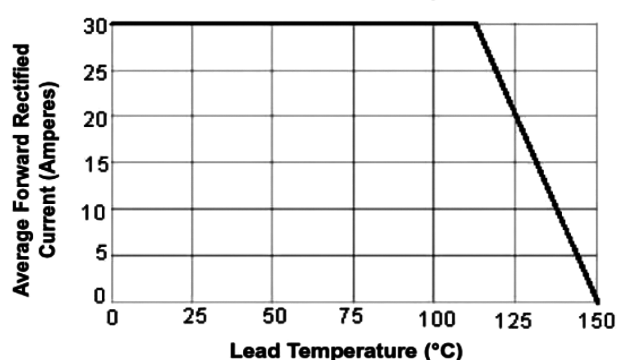
Electrical Characteristics

Characteristic	Symbol	Values	Units
Maximum Instantaneous Forward Voltage ($I_F = 15$ Amperes $T_c = 25^\circ\text{C}$) ($I_F = 15$ Amperes $T_c = 125^\circ\text{C}$)	V_F	0.975 0.88	V
Maximum Instantaneous Reverse Current (Rated DC Voltage, $T_c = 25^\circ\text{C}$) (Rated DC Voltage, $T_c = 125^\circ\text{C}$)	I_R	10 500	μA
Reverse Recovery Time ($I_F = 0.5\text{A}$, $I_R = 1$ Irr = 0.25A)	T_{RR}	35	ns
Typical Junction Capacitance (Reverse Voltage of 4 volts and $f = 1\text{MHz}$)	C_P	250	pF

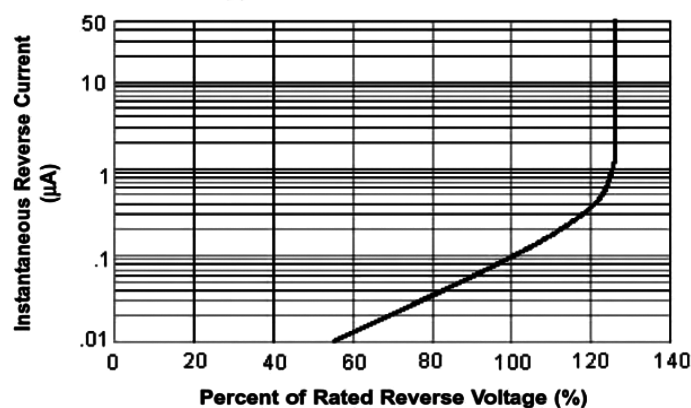
Typical Forward Characteristics



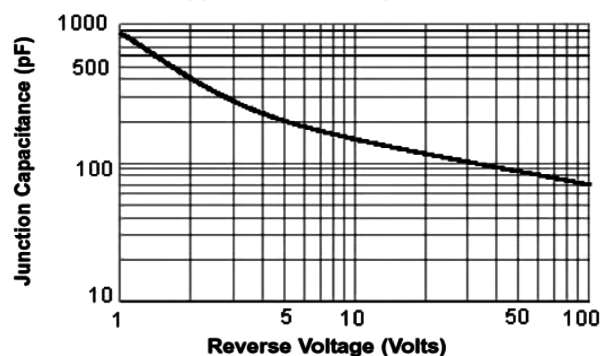
Forward Current Derating Curve



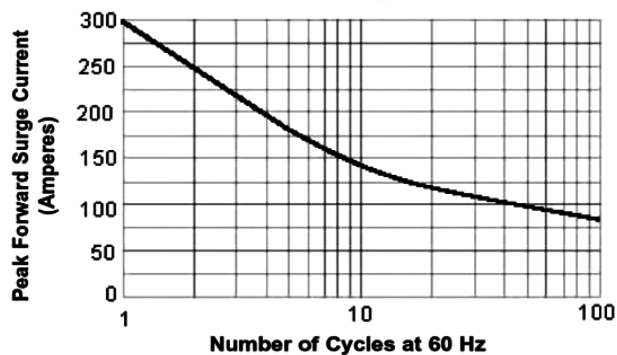
Typical Reverse Characteristics

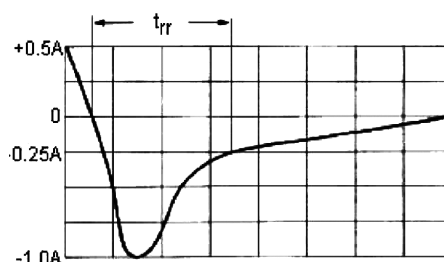
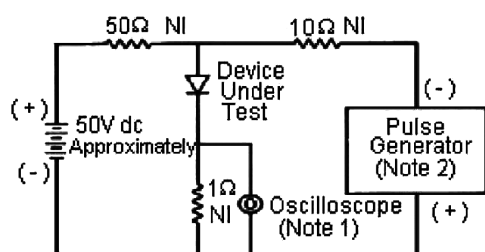


Typical Junction Capacitance



Peak Forward Surge Current





Set time base for 10/20 ns/div

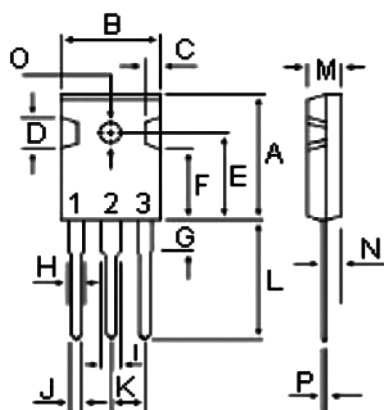
Reverse Recovery Time Characteristic and Test Circuit Diagram

Notes:

1. Rise Time = 7ns maximum input impedance = 1MΩ, 22pF.
2. Rise Time = 10ns maximum input impedance = 50Ω.

Diagram

TO-3P



Dim.	Min.	Max.
A	20.63	22.38
B	15.38	16.2
C	1.9	2.7
D	5.1	6.1
E	14.81	15.22
F	11.72	12.84
G	4.2	4.5
H	1.82	2.46

Dim.	Min.	Max.
I	2.92	3.23
J	0.89	1.53
K	5.26	5.66
L	18.5	21.5
M	4.68	5.36
N	2.4	2.80
O	3.25	3.65
P	0.55	0.7

Dimensions : Millimetres

Common Cathode



Part Number Table

Description	Part Number
Ultra Fast Rectifiers, 200V	MUR3020WT

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