

RoHS
Compliant



Features

- High surge capacity
- Low power loss high efficiency
- Glass passivated chip junctions
- 150°C operating junction temperature
- Low stored charge majority carrier conduction
- Low forward voltage, high current capability
- High-switching speed 50 nanosecond recovery time
- Plastic material used carries Underwriters Laboratory
- Flammability classification 94V-0

Specifications

Reverse Voltage : 20 Volts

Forward Current : 8 Amperes

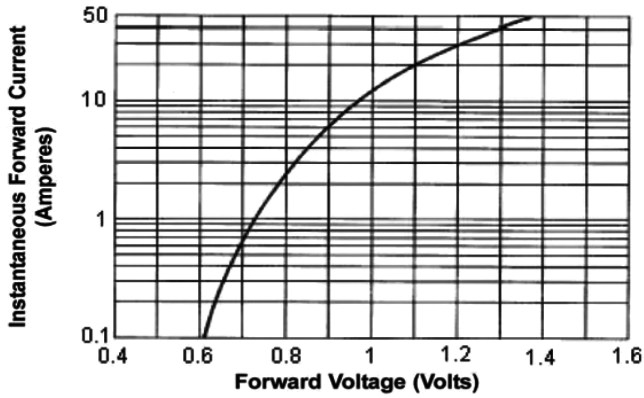
Maximum Ratings

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	$I_{F(AV)}$	8	
Non-Repetitive Peak Surge Current (Surge applied at rate load conditions half-wave, single phase, 60Hz)	I_{FSM}	150	A
Operating and Storage Junction Temperature Range	T_J, T_{STG}	-65 to +150	°C

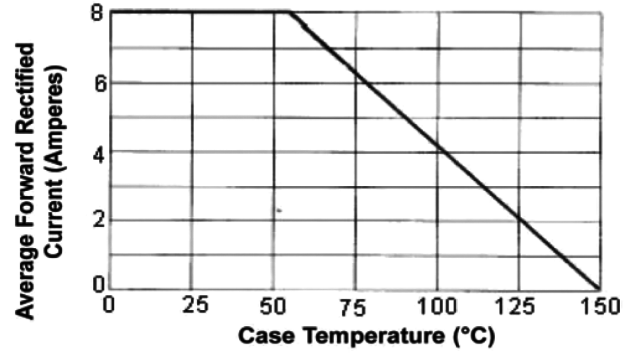
Electrical Characteristics

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	mA
Reverse Recovery Time ($I_F = 0.5\text{A}$, $I_R = 1\text{A}$, $I_{RR} = 0.25\text{A}$)	T_{RR}	35	ns
Typical Junction Capacitance (Reverse Voltage of 4 Volts and $f = 1\text{MHz}$)	C_P	120	pF

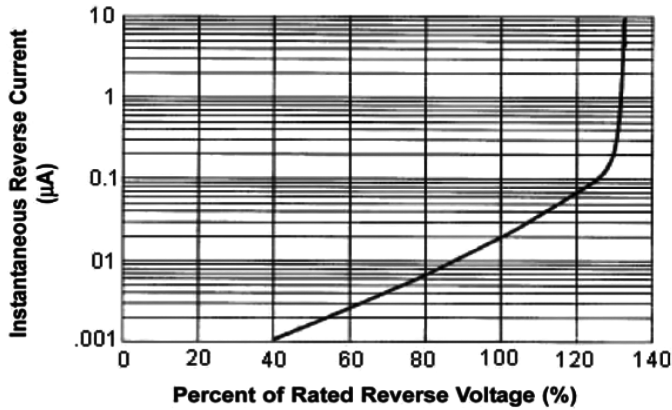
Typical Forward Characteristics



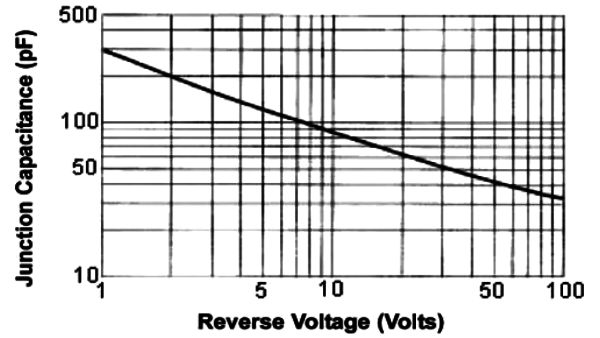
Forward Current Derating Curve



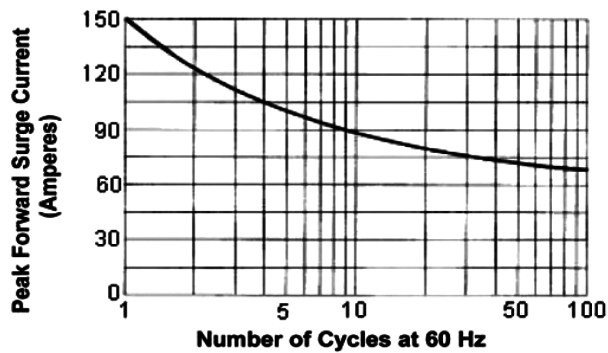
Typical Reverse Characteristics

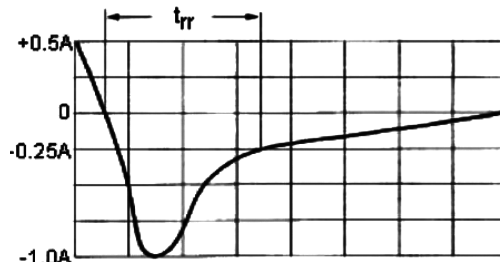
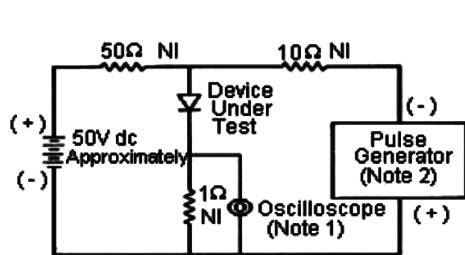


Typical Junction Capacitance



Peak Forward Surge Current





Set time base for 10/20 ns/div

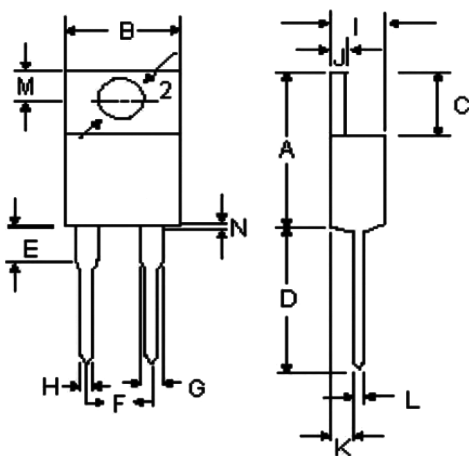
Reverse Recovery Time Characteristic and Test Circuit Diagram

Notes:

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

Diagram

TO-220A



Dim.	Min.	Max.	Dim.	Min.	Max.
A	14.68	15.32	I	4.22	4.98
B	9.78	10.42	J	1.14	1.36
C	6.01	6.52	K	2.20	2.97
D	13.06	14.62	L	0.33	0.55
E	3.57	4.07	M	2.48	2.98
F	4.83	5.33	N	-	1
G	1.12	1.36	O	3.7	3.9
H	0.72	0.96			

Dimensions : Millimetres

Common Cathode



Part Number Table

Description	Part Number
Ultra Fast Rectifier, 200V	MUR820

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