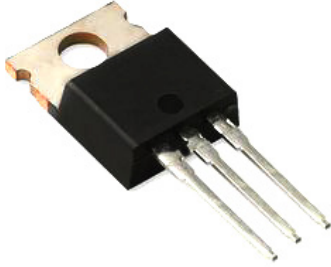


Ultra Fast Rectifier



Features:

- High surge capacity
- Low power loss, high efficiency
- Glass passivated chip junctions
- 150°C operation junction temperature
- Low stored charge majority carrier conduction
- Low forward voltage, high current capability
- High-switching speed 35 nanosecond recovery time
- Plastic material used carries underwriters laboratory

Maximum Ratings:

Characteristic	Symbol	MURF1620	Units
Peak Repetitive Reverse Voltage Working Peak Reverse Voltage DC Blocking Voltage	V_{RRM} V_{RWM} V_R	200	V
RMS Reverse Voltage	$V_{R(RMS)}$	140	
Average Rectifier Forward Current Total Device (Rated V_R), $T_c = 55^\circ\text{C}$	$I_{F(AV)}$	8 16	A
Peak Repetitive Forward Current (Rate V_R , Square Wave, 20kHz, $T_c = 125^\circ\text{C}$)	I_{FM}	16	
Non-Repetitive Peak Surge Current (Surge applied at rate load conditions half-wave, single phase 60HZ)	I_{FSM}	150	
Operating and Storage Junction Temperature Range	T_J, T_{stg}	-65 to +150	$^\circ\text{C}$

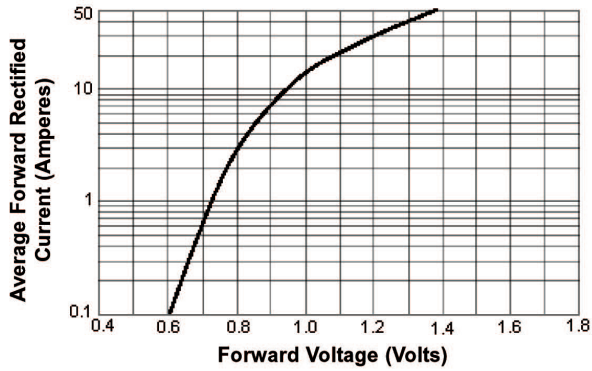
Electrical Characteristics:

Characteristic	Symbol	MURF1620	Units
Maximum Instantaneous Forward Voltage ($I_F = 8$ Amperes $T_c = 25^\circ\text{C}$) ($I_F = 8$ Amperes $T_c = 125^\circ\text{C}$)	V_F	0.975 0.85	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	10 200	μA
Reverse Recovery Time ($I_F = 0.5\text{A}$, $I_R = 1$, $I_{RR} = 0.25\text{A}$)	T_{RR}	35	ns
Typical Junction Capacitance (Reverse Voltage of 4 Volts and $f = 1\text{MHz}$)	C_P	120	pF

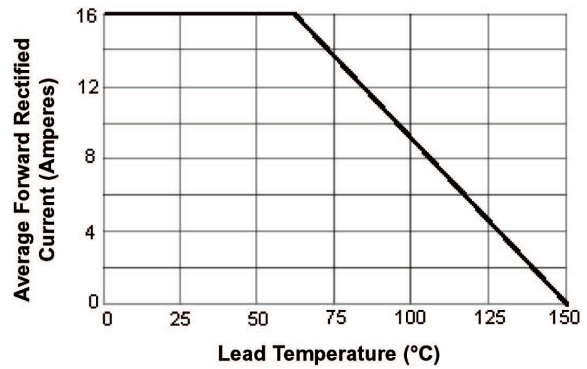
Ultra Fast Rectifier



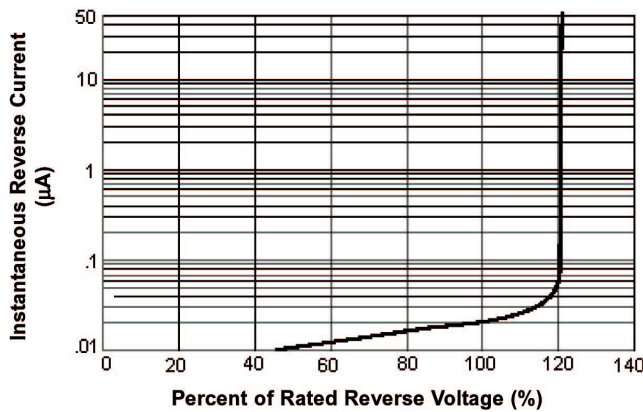
Typical Forward Characteristics



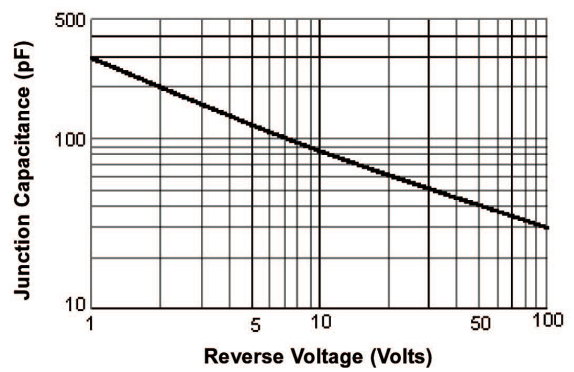
Forward Current Derating Curve



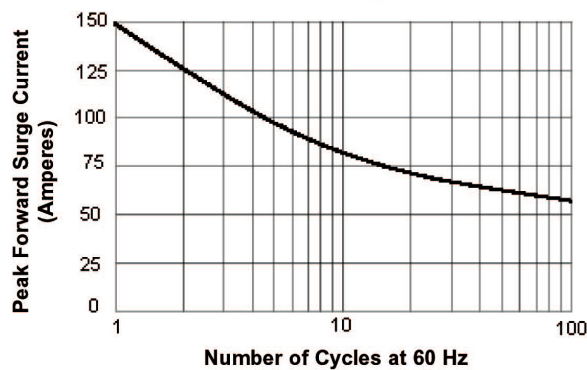
Typical Reverse Characteristics



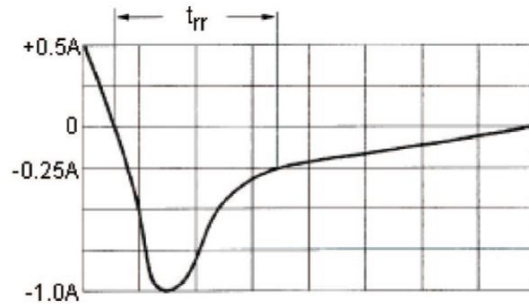
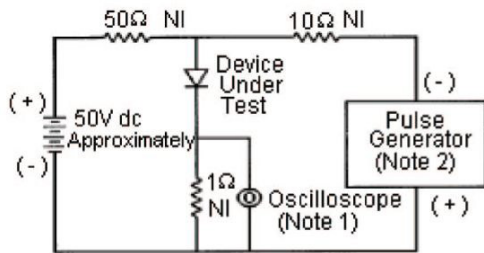
Typical Junction Capacitance



Peak Forward Surge Current



Ultra Fast Rectifier



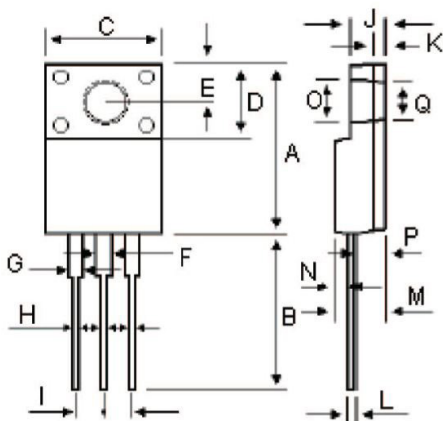
Set time base for 10/20 ns/cm

Reverse Recovery Time Characteristic and Test Circuit Diagram

Notes:

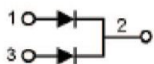
1. Rise Time = 7ns max. input Impedance = 1MΩ, 22pF
2. Rise Time = 10ns max. input Impedance = 50Ω

**16 Amperes
200 Volts
ITO-220AB**



DIM	MILLIMETERS	
	MIN	MAX
A	15.05	15.15
B	13.35	13.45
C	10.00	10.10
D	6.55	6.65
E	2.65	2.75
F	1.55	1.65
G	1.15	1.25
H	0.55	0.65
I	2.50	2.60
J	3.00	3.20
K	1.10	1.20
L	0.55	0.65
M	4.40	4.60
N	1.15	1.25
P	2.65	2.75
O	3.35	3.45
Q	3.15	3.25

Dimensions : Millimetres



Common Cathode

Part Number Table

Description	Part Number
Diode, Dual REC, 16A, 200V, TO-220AB	MURF1620CT

Important Notice : This data sheet and its contents (the "Information") belong to the members of the Premier Farnell group of companies (the "Group") or are licensed to it. No licence is granted for the use of it other than for information purposes in connection with the products to which it relates. No licence of any intellectual property rights is granted. The Information is subject to change without notice and replaces all data sheets previously supplied. The Information supplied is believed to be accurate but the Group assumes no responsibility for its accuracy or completeness, any error in or omission from it or for any use made of it. Users of this data sheet should check for themselves the Information and the suitability of the products for their purpose and not make any assumptions based on information included or omitted. Liability for loss or damage resulting from any reliance on the Information or use of it (including liability resulting from negligence or where the Group was aware of the possibility of such loss or damage arising) is excluded. This will not operate to limit or restrict the Group's liability for death or personal injury resulting from its negligence. Multicomp is the registered trademark of the Group. © Premier Farnell plc 2012.

