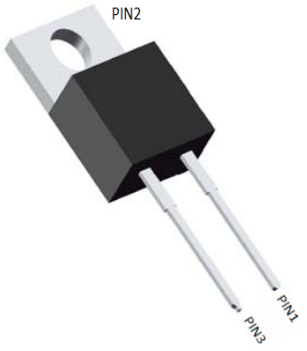
MUR1510-MUR1560

Ultra-Fast Recovery Rectifier Diodes

Features

- Glass passivated chip
- Super fast switching time for hight efficiency
- Low reverse leakage current
- High surge capacity



TO-220AC

Typical Applications

Typical applications are in switching power supplies, converters, freewheeling diodes, and reverse battery protection.

Mechanical Data

- **Package**: TO-220AC
  Molding compound meets UL 94 V-0 flammability rating, RoHS-compliant
- **Terminals**: Tin plated leads, solderable per J-STD-002 and JESD22-B102
- **Polarity**: As marked

Maximum Ratings (Ta=25℃ Unless otherwise specified)

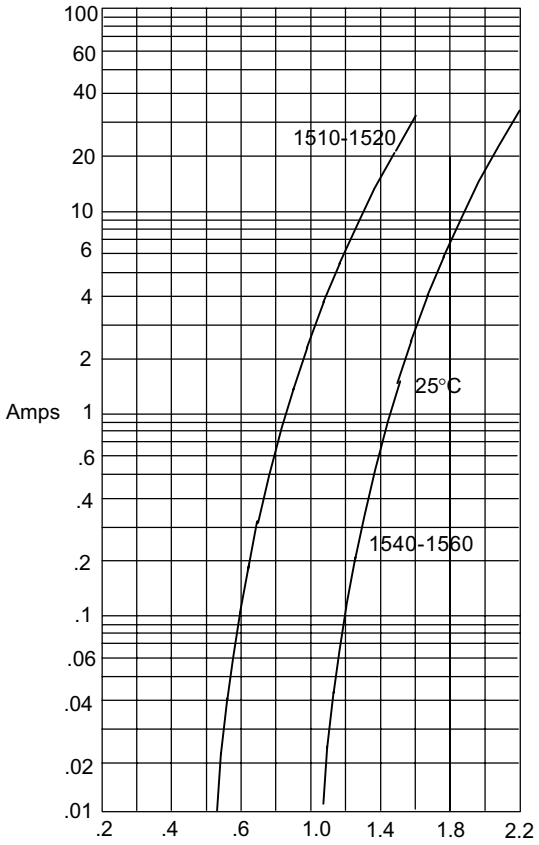
PARAMETER	SYMBOL	UNIT	MUR1510	MUR1515	MUR1520	MUR1540	MUR1560
Device marking code			MUR1510	MUR1515	MUR1520	MUR1540	MUR1560
Repetitive Peak Reverse Voltage	V_{RRM}	V	100	150	200	400	600
Average Rectified Output Current @60Hz half sine-wave, R-load, Tc(FIG.1)	I_o	A	15				
Surge(Non-repetitive)Forward Current @60Hz half sine-wave,1 cycle, Ta=25℃	I_{FSM}	A	200			150	
Storage Temperature	T_{stg}	℃	-55 ~ +150				
Junction Temperature	T_j	℃	-55 ~ +150				

Electrical Characteristics (Ta=25℃ Unless otherwise specified)

PARAMETER	SYMBOL	UNIT	TEST CONDITIONS	1510	1515	1520	1540	1560
Maximum instantaneous forward voltage drop per diode	V_{FM}	V	I_{FM}=15A	1.05			1.25	1.50
Maximum DC reverse current at rated DC blocking voltage per diode	I_{RRM1}	uA	$V_{RM}=V_{RRM}$ T_a=25℃	10				
	I_{RRM2}		$V_{RM}=V_{RRM}$ T_a=125℃	500				1000
Reverse Recovery Time	Trr	ns	I_F=0.5A I_{RM}=1A I_{RR}=0.25A	35			60	

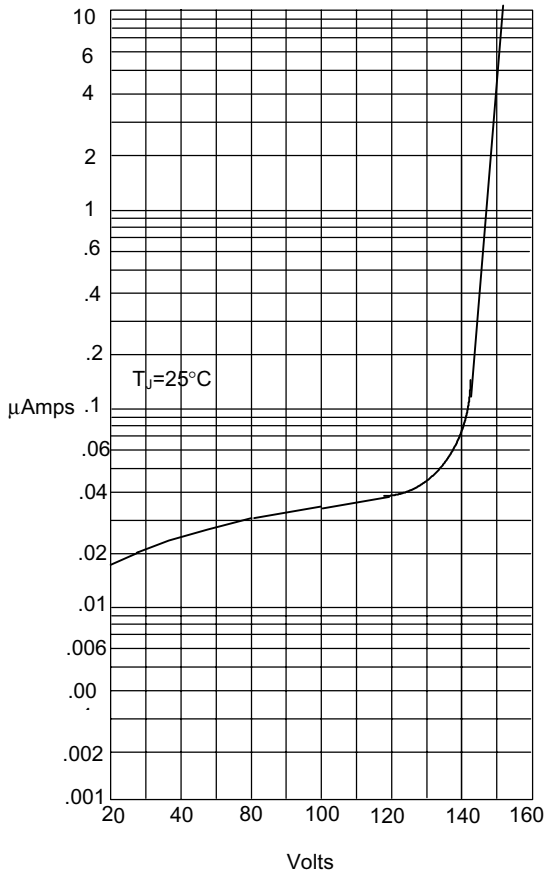
Characteristics (Typical)

Figure 1
Typical Forward Characteristics



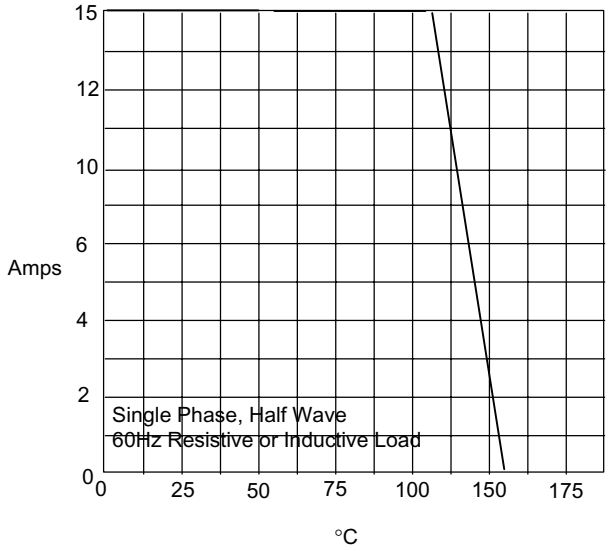
Instantaneous Forward Current - Amperes *versus*
Instantaneous Forward Voltage - Volts

Figure 2
Typical Reverse Characteristics



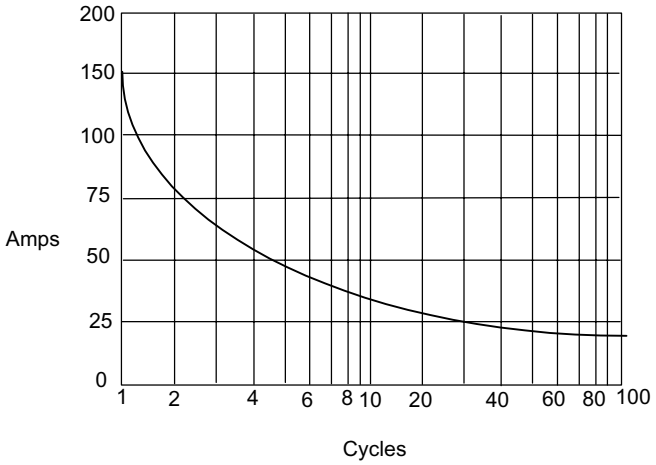
Instantaneous Reverse Leakage Current - MicroAmperes *versus*
Percent Of Rated Peak Reverse Voltage - Volts

Figure 3
Forward Derating Curve



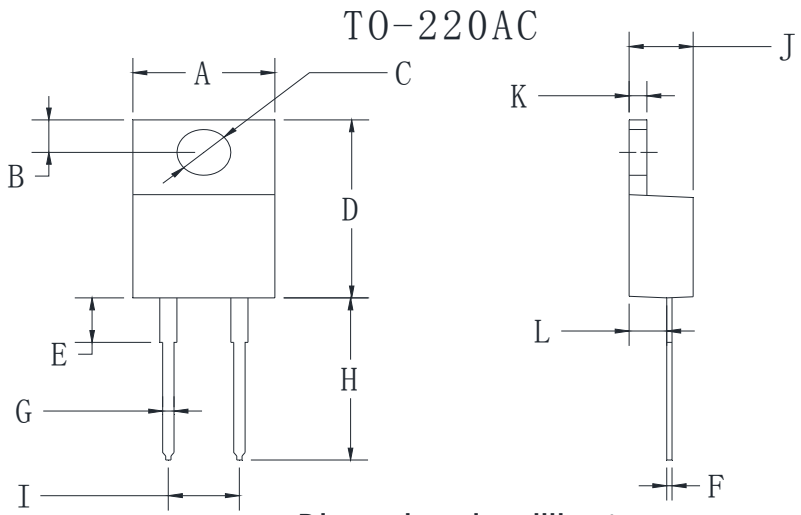
Average Forward Rectified Current - Amperes *versus*
Case Temperature -°C

Figure 4
Maximum Non-Repetitive Forward Surge Current



Peak Forward Surge Current - Amperes *versus*
Number Of Cycles At 60Hz - Cycles

Outline Dimensions



Dimensions in millimeters

TO-220AC		
Dim	Min	Max
A	9.5	10.9
B	2.22	3.27
C	3.34	4.31
D	14.5	15.5
E	3.16	4.46
F	0.28	0.64
G	0.68	0.94
H	13.06	14.62
I	4.55	5.60
J	4.04	5.1
K	1.14	1.4
L	2.14	3.19

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