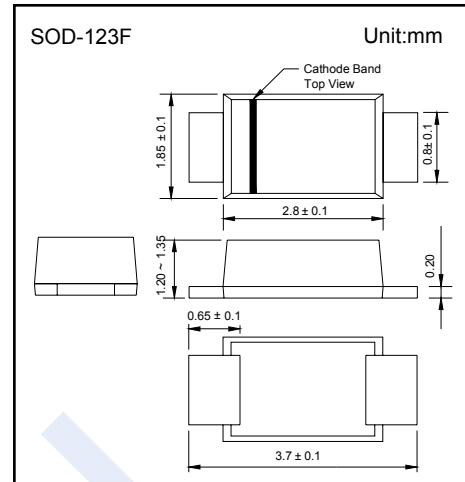


## Super Fast Recovery Diodes

## MUR105F ~ MUR1100F

## ■ Features

- Super Fast Switching Speed For High Efficiency
- Epoxy meets UL 94 V-0 flammability rating



## ■ Absolute Maximum Ratings Ta = 25°C

Parameter	Symbol	MUR 105F	MUR 110F	MUR 115F	MUR 120F	MUR 140F	MUR 160F	MUR 180F	MUR 1100F	Unit
Repetitive Peak Reverse Voltage	V <sub>RRM</sub>	50	100	150	200	400	600	800	1000	V
RMS Voltage	V <sub>RMS</sub>	35	70	105	140	280	420	560	700	
Maximum DC Blocking Voltage	V <sub>DC</sub>	50	100	150	200	400	600	800	1000	
Averaged Forward Current, Ta=55°C	I <sub>FAV</sub>	1								A
Peak Forward Surge Current @ 8.3ms	I <sub>FSM</sub>	35								
Junction Temperature	T <sub>J</sub>	150								°C
Operating Temperature	T <sub>opr</sub>	-55 to 150								
Storage Temperature	T <sub>stg</sub>	-55 to 150								

## ■ Electrical Characteristics Ta = 25°C

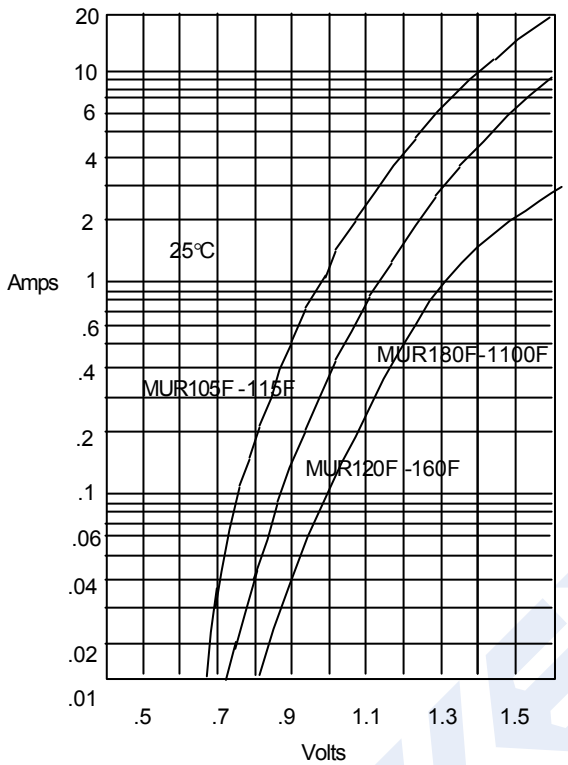
Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Forward voltage	MUR105F-115F	I <sub>F</sub> =1A, Ta = 25°C			0.975	V
	MUR120F-160F				1.35	
	MUR180F-1100F				1.75	
Reverse voltage leakage current	I <sub>R</sub>	Ta = 25°C			5	uA
		Ta = 150°C			50	
Reverse Recovery Time	MUR105F-120F	I <sub>F</sub> =0.5A, I <sub>R</sub> =1A, I <sub>rr</sub> =0.25A			45	ns
	MUR140F-160F				60	
	MUR180F-1100F				75	
Junction Capacitance	C <sub>J</sub>	V <sub>R</sub> =4V, f=1MHz			20	pF

# Super Fast Recovery Diodes

## MUR105F ~ MUR1100F

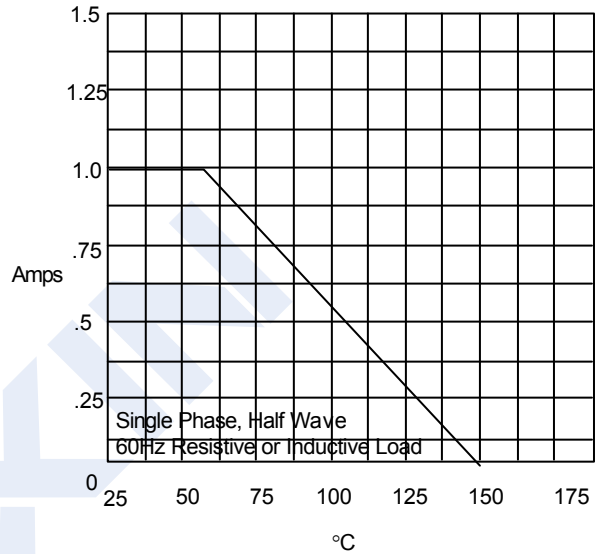
### ■ Typical Characteristics

Figure 1  
Typical Forward Characteristics



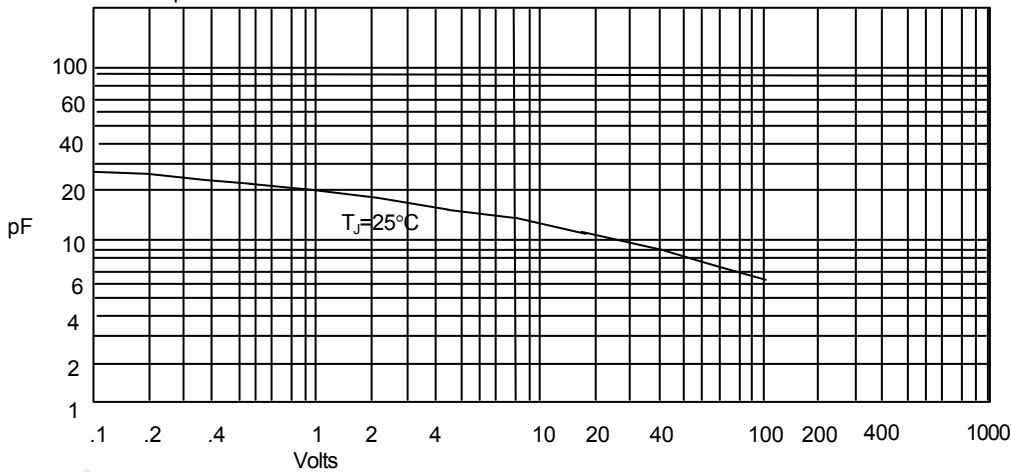
Instantaneous Forward Current - Amperes versus  
Instantaneous Forward Voltage - Volts

Figure 2  
Forward Derating Curve



Average Forward Rectified Current - Amperes versus  
Ambient Temperature - °C

Figure 3  
Junction Capacitance



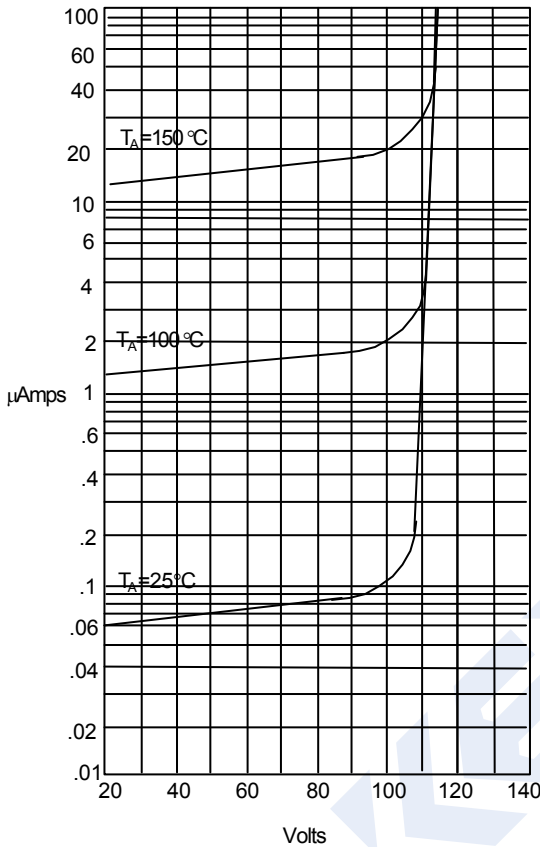
Junction Capacitance - pF versus  
Reverse Voltage - Volts

# Super Fast Recovery Diodes

## MUR105F ~ MUR1100F

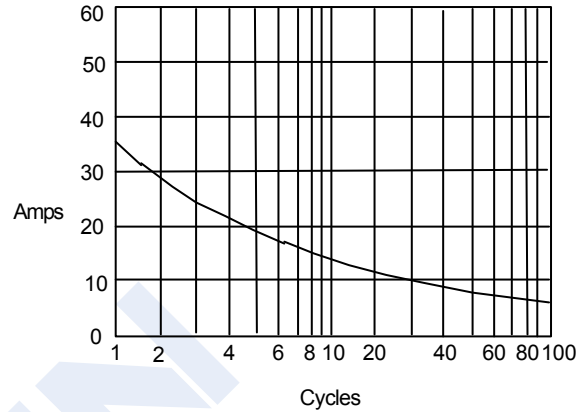
### Typical Characteristics

Figure 4  
Typical Reverse Characteristics



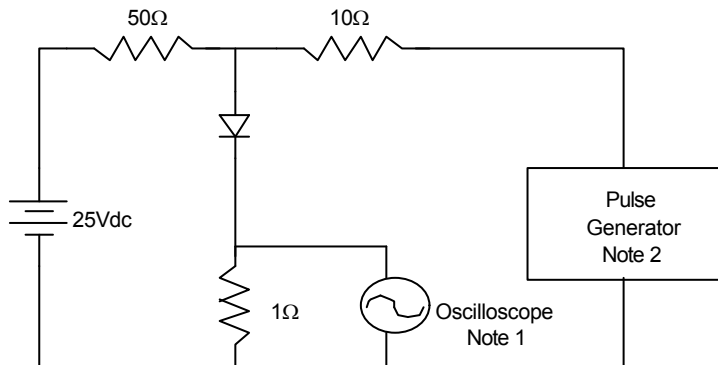
Instantaneous Reverse Leakage Current - MicroAmperes versus

Figure 5  
Peak Forward Surge Current



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

Figure 6  
Reverse Recovery Time Characteristic And Test Circuit Diagram



- Notes:
1. Rise Time = 7ns max.  
Input impedance = 1 megohm, 22pF
  2. Rise Time = 10ns max.  
Source impedance = 50 ohms
  3. Resistors are non-inductive

