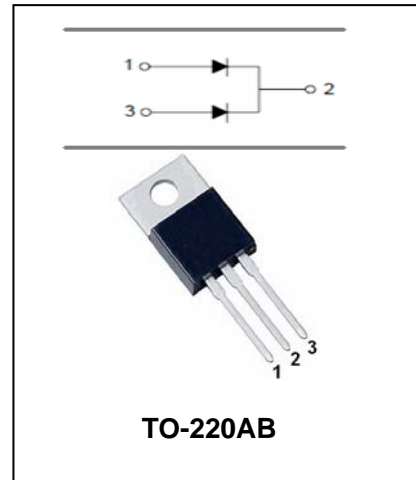


## Super Fast Rectifiers

## USF520CT---USF560CT

### FEATURES

- Low cost.
- Low leakage.
- Low forward voltage drop.
- High current capability.
- Easily cleaned with Alcohol, Isopropanol and Similar solvents.
- The plastic material carries U/L recognition 94V-0.



### MAXIMUM RATING operating temperature range applies unless otherwise specified.

Symbol	Parameter	USF 520CT	USF 530CT	USF 540CT	USF 550CT	USF 560CT	Unit
$V_{RRM}$	Recurrent Peak Reverse Voltage	200	300	400	500	600	V
$V_{RMS}$	RMS Voltage	140	210	280	350	420	V
$V_{DC}$	DC Blocking Voltage	200	300	400	500	600	V
$I_{(AV)}$	Average Forward Rectified Current @ $T_A=100^\circ\text{C}$	5.0					A
$I_{FSM}$	Peak Forward Surge Current 8.3ms Single Half-sine-wave Superimposed on Rstcd Load	60					A
$T_j T_{stg}$	Operating Junction and Storage Temperature Range	-55 to +150					$^\circ\text{C}$

### ELECTRICAL CHARACTERISTICS @ $T_a=25^\circ\text{C}$ unless otherwise specified

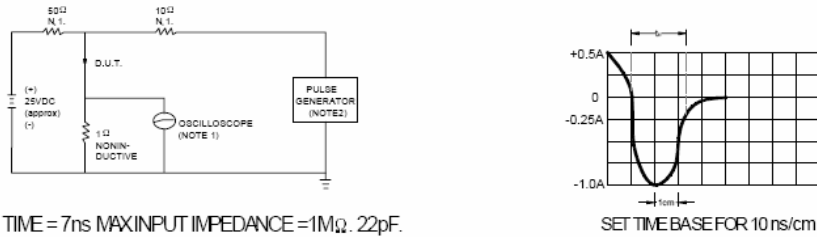
Parameter	Symbol	Test conditions	USF520CT	USF530CT-USF540CT	USF550CT-USF560CT	UNIT
			MAX			
Reverse Current	$I_R$	$V_R=V_{RRM}, T_A=25^\circ\text{C}$ $V_R=V_{RRM}, T_A=100^\circ\text{C}$	5.0 250	10 400		$\mu\text{A}$
Forward Voltage	$V_F$	$I_F=2.5\text{A}$	0.98	1.3	1.7	V
Reverse Recovery Time	$t_{rr}$	$I_F=0.5\text{A}, I_R=1\text{A}, I_{rr}=0.25\text{A}$	25			ns

**Super Fast Rectifiers**

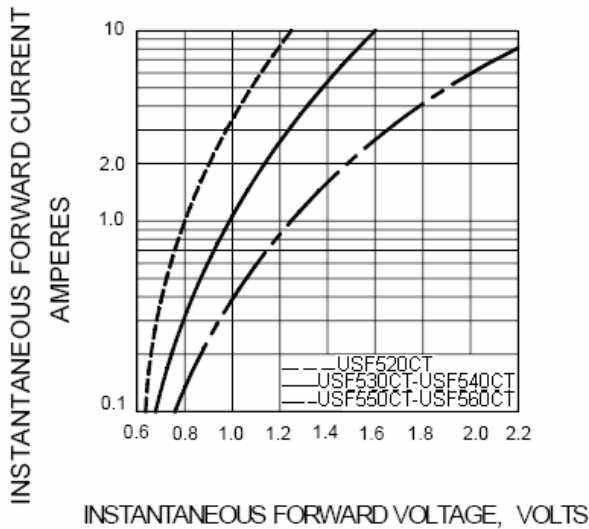
**USF520CT---USF560CT**

TYPICAL CHARACTERISTICS @ Ta=25°C unless otherwise specified

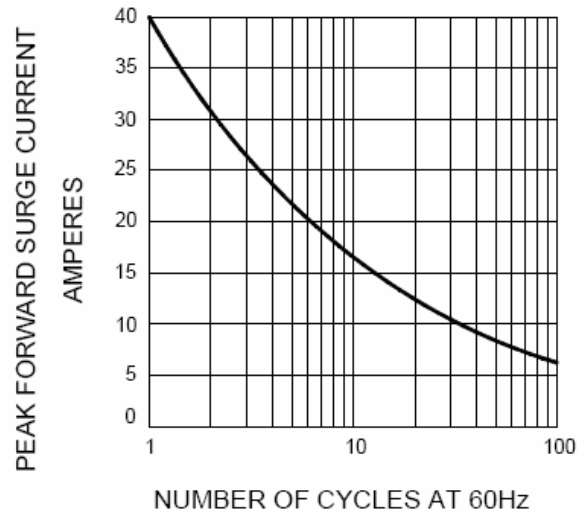
**FIG.1 – TEST CIRCUIT DIAGRAM AND REVERSE RECOVERY TIME CHARACTERISTIC**



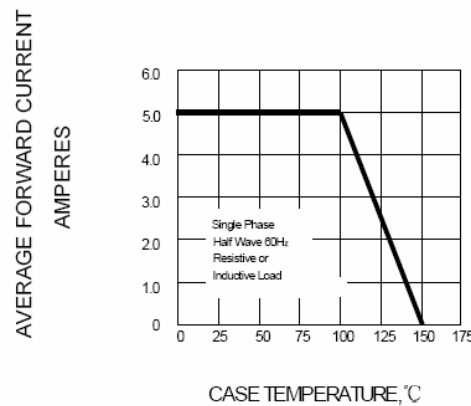
**FIG.2 – TYPICAL FORWARD CHARACTERISTIC**



**FIG.3 – PEAK FORWARD SURGE CURRENT**



**FIG.4-FORWARD DERATING CURVE**





**Super Fast Rectifiers**

**USF520CT---USF560CT**

**PACKAGE OUTLINE**

Plastic surface mounted package

TO-220AB

