

# Glass Passivated Ultra Fast Recovery Rectifier

**COMCHIP**  
SMD DIODE SPECIALIST

## UF20C01CF-G THRU UF20C05CF-G

Voltage Range 50 to 600 V

Current 20.0 Ampere

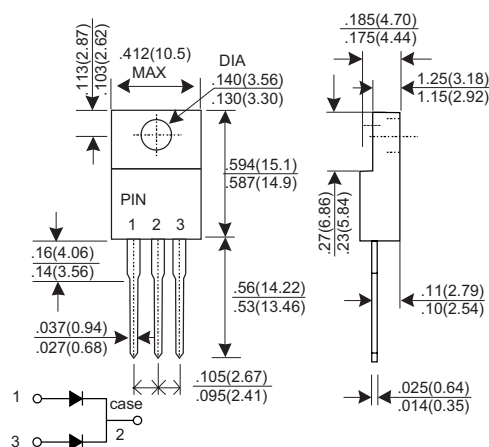
### Features

- ★ Fast switching for high efficiency
- ★ Low forward voltage drop
- ★ High current capability
- ★ Low reverse leakage current
- ★ High surge current capability

### Mechanical Data

- ★ Case: Molded plastic ITO-220AB
- ★ Epoxy: UL 94V-0 rate flame retardant
- ★ Terminals: Solderable per MIL-STD-202 method 208
- ★ Polarity: Color band denotes cathode
- ★ Mounting position: Any
- ★ Weight: 1.81 grams

### ITO-220AB



### MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Rating at 25°C ambient temperature unless otherwise specified.

Single phase, half wave, 60Hz, resistive or inductive load.

For capacitive load, derate current by 20%.

	SYMBOL	UF 20C01CF-G	UF 20C02CF-G	UF 20C03CF-G	UF 20C04CF-G	UF 20C05CF-G	UNIT
Maximum Recurrent Peak Reverse Voltage	V <sub>RRM</sub>	50	100	200	400	600	V
Maximum RMS Voltage	V <sub>RMS</sub>	35	70	140	280	420	V
Maximum DC Blocking Voltage	V <sub>DC</sub>	50	100	200	400	600	V
Maximum Average Forward Rectified Current T <sub>c</sub> =125°C	I <sub>F(AV)</sub>	20.0					A
Peak Forward Surge Current, 8.3ms single Half sine-wave superimposed on rated load (JEDEC method)	I <sub>FSM</sub>	125					A
Maximum Instantaneous Forward Voltage @ 10.0 A	V <sub>F</sub>	1.0		1.3		1.7	V
Maximum DC Reverse Current @T <sub>J</sub> =25°C At Rated DC Blocking Voltage @T <sub>J</sub> =125°C	I <sub>R</sub>	10.0 250					uA uA
Maximum Reverse Recovery Time (Note 1)	T <sub>rr</sub>	50				75	nS
Typical junction Capacitance (Note 2)	C <sub>J</sub>	120			70		pF
Typical Thermal Resistance (Note 3)	R <sub>θJA</sub>	2.0					°CW
Operating Junction and Storage Temperature Range	T <sub>J</sub> , T <sub>STG</sub>	-55 to +150					°C

NOTES : (1) Reverse recovery test conditions I<sub>F</sub> = 0.5A, I<sub>R</sub> = 1.0A, I<sub>rr</sub> = 0.25A.  
(2) Measured at 1.0 MHz and applied reverse voltage of 4.0 Volts DC.  
(3) Thermal Resistance junction to case.

## RATINGS AND CHARACTERISTIC CURVES UF20C01CF-G THRU UF20C05CF-G

FIG.1 - FORWARD CURRENT DERATING CURVE

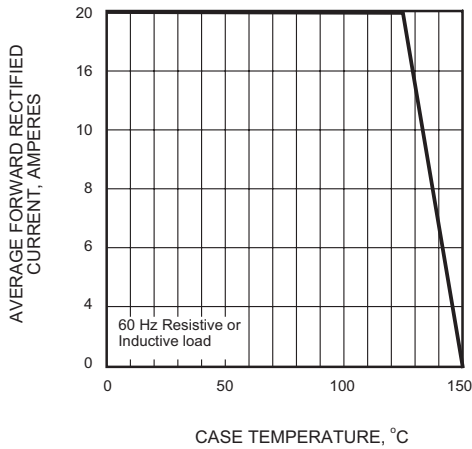


FIG.2 - MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

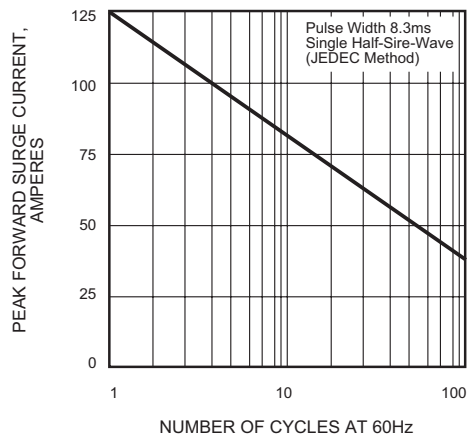


FIG.3 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

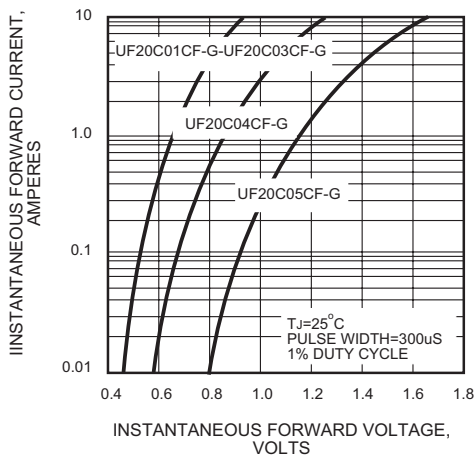


FIG.4 - TYPICAL REVERSE CHARACTERISTICS

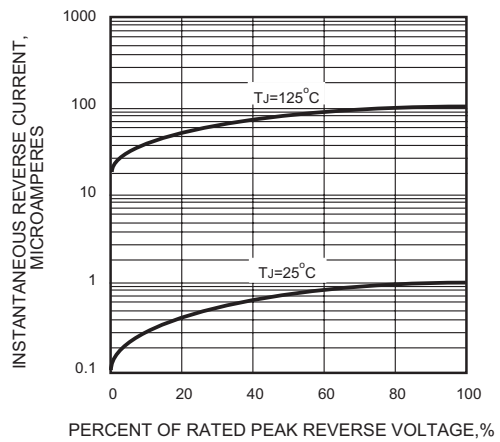


FIG.5 - TYPICAL JUNCTION CAPACITANCE

