SHANGHAI SHANGSI ELECTRONICS CO., LTD

SUPER FAST RECTIFIERS

FG1603CT THRU FG1603GA	REVERSE VOLTAGE - **200**Volts FORWARD CURRENT - **16.0** Amperes

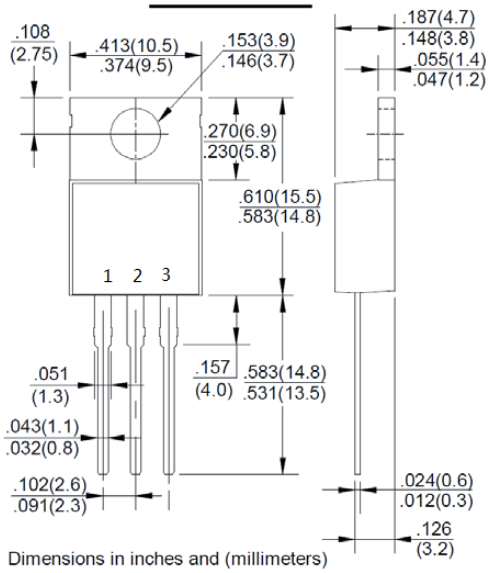
FEATURES

- Super fast switching time for high efficiency
- Low forward voltage drop
  High current capability
- Low reverse leakage current
- Plastic material has UL flammability classification 94V-0

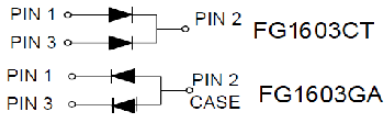
MECHANICAL DATA

- Case: TO-220AB molded plastic
- Epoxy: UL94V-0 rate flame retadant
- Mounting position :Any
- Weight: 2.24 grams
- polarity:As marked

TO-220AB



Dimensions in inches and (millimeters)



MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Rating at 25℃ ambient temperature unless otherwise specified.

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

For capacitive load, derate current by 20%

CHARACTERISTICS	SYMBOL	FG1603CT	FG1603GA	UNIT
Maximum Recurrent Peak Reverse Voltage	V_{RRM}	200	200	V
Maximum RMS Voltage	V_{RMS}	140	140	V
Maximum DC Blocking Voltage	V_{DC}	200	200	V
Maximum Average Forward Rectified Current @T_A =75 ℃	$I_{(AV)}$	16.0		A
Peak Forward Surge Current 8.3ms Single Half Sine-Wave Super Imposed on Rated Load(JEDEC Method)	I_{FSM}	150		A
Peak Forward Voltage at 8..0A DC	V_F	1.3		V
Maximum DC Reverse Current @T_J=25℃ at Rated DC Blocking Voltage @T_J=100℃	I_R	10 100		μA
Maximum Reverse Recovery Time(Note1)	T_{RR}	150		nS
Typical Junction Capacitance (Note2)	C_J	60		pF
Typical Thermal Resistance (Note3)	$R_{\theta JA}$	2.5		℃/W
Operating and Storage Temperature Range	T_J,T_{STG}	-55 to + 150		℃

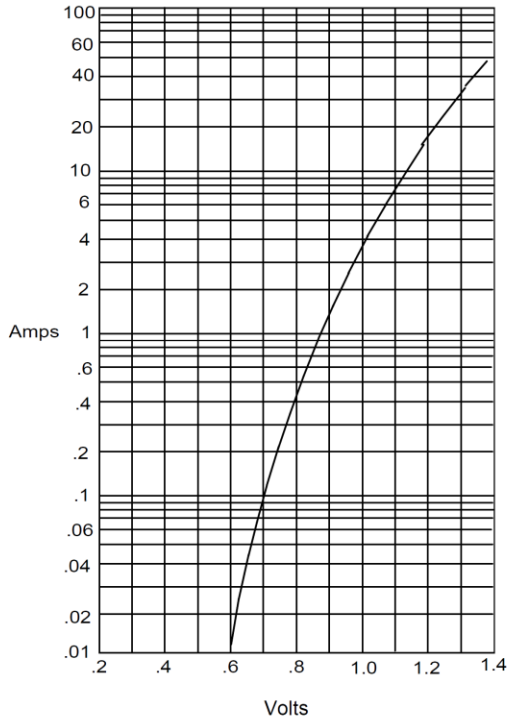
NOTES:1.Measured with I_F=0.5A,I_R=1A,I_{RR}=0.25A

2. Measured at 1.0 MHZ and applied reverse voltage of 4.0VDC.

3.Thermal resistance junction to ambient

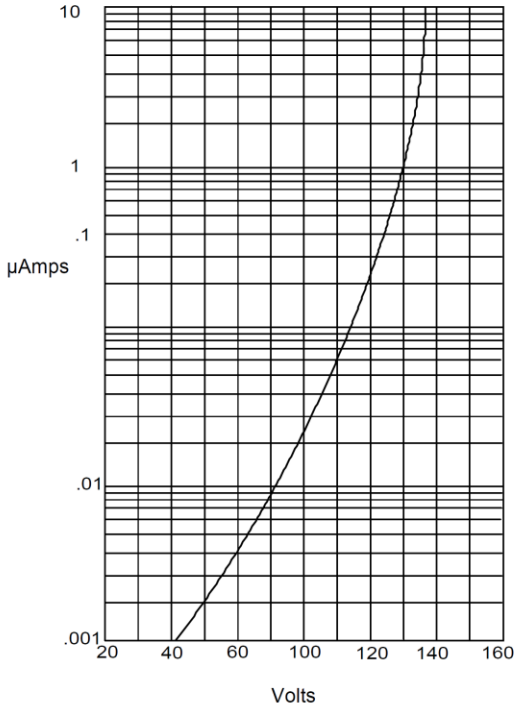
RATING AND CHARACTERTIC CURVES
FG1603CT thru FG1603GA

Figure 1
Typical Forward Characteristics



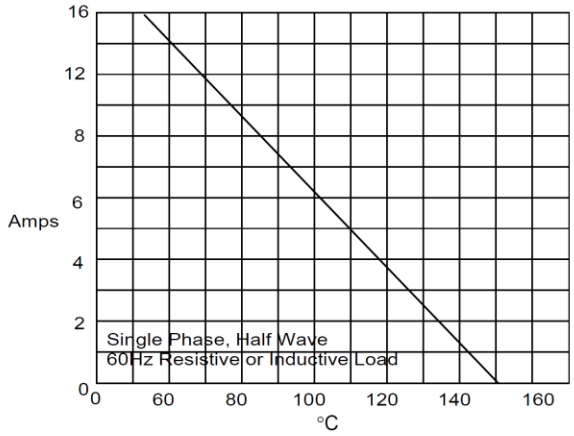
Instantaneous Forward Current - Amperes *VERSUS*
Instantaneous Forward Voltage - Volts

Figure 2
Typical Reverse Characteristics



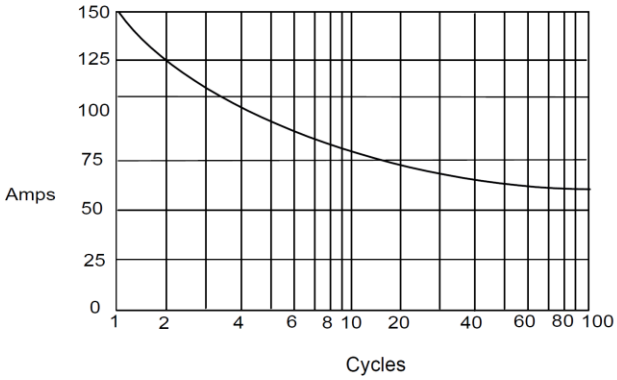
Instantaneous Reverse Leakage Current - MicroAmperes *VERSUS*
Percent Of Rated Peak Reverse Voltage - Volts

Figure 3
Forward Derating Curve



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

Figure 4
Maximum Non-Repetitive Forward Surge Current



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