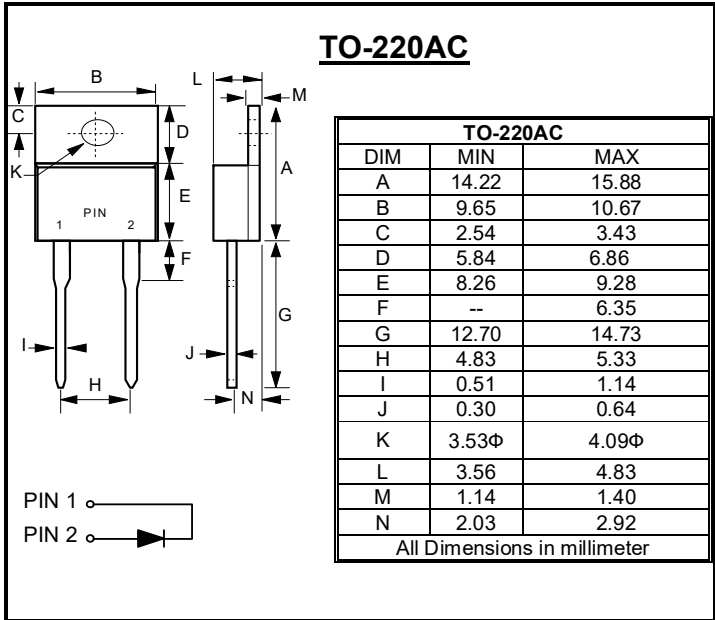


**GLASS PASSIVATED RECTIFIER**

**REVERSE VOLTAGE – 1000 Volts**  
**FORWARD CURRENT – 16 Ampere**

- FEATURES**
- Glass passivated chip
  - Low forward voltage drop and high current capability
  - Low reverse leakage current
  - High surge capacity
- MECHANICAL DATA**
- Case: TO-220AC molded plastic
  - Plastic package has UL flammability classification 94V-0
  - Polarity: As marked on the body
  - Weight: 0.079 ounces, 2.24 grams
  - Mounting position: Any



**MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS**  
 Ratings at 25°C ambient temperature unless otherwise specified.

**ABSOLUTE RATING**

Parameter	Symbol	Value	Units
Maximum Repetitive Peak Reverse Voltage	$V_{RRM}$	1000	V
Maximum DC Blocking Voltage	VDC	1000	V
Maximum Average Forward Rectified Current $T_c=90^\circ\text{C}$	IAV	16	A
(with heatsink Note 4)		3.3	
Peak Forward Surge Current @ $t_p=8.3\text{ms}$ , $T_j=25^\circ\text{C}$	IFSM	225	A
Peak Forward Surge Current @ $t_p=1.0\text{ms}$ , $T_j=25^\circ\text{C}$	IFSM	450	A
Operating Temperature Range	$T_j$	-55 ~ +150	°C
Storage Temperature Range	$T_{STG}$	-55 ~ +150	°C

**STATIC ELECTRICAL CHARACTERISTICS**

Parameter	Test condition	Symbol	Value	Unit
Forward Voltage Note(1)	IF=16A $T_j=25^\circ\text{C}$	VF	1.1	V
Reverse Leakage current	At VR rated $T_j=25^\circ\text{C}$	IR	10	uA
			$T_j=125^\circ\text{C}$	
Typical Junction Capacitance (Note2)		Cj	100	pF

**THERMAL PERFORMANCE**

Parameter	Symbol	Typ.	Unit
Typical Thermal Resistance (Note 3,) (without heatsink)	$R_{thJc}$	10	°C/W
	$R_{thJa}$	35	
Typical Thermal Resistance (Note 3,4) (with heatsink)	$R_{thJc}$	2	°C/W
	$R_{thJa}$	5	

**Note :**

- (1) 300us Pulse Width, 2% Duty Cycle.
- (2) Measured at 1.0MHz and applied reverse voltage of 4.0V DC
- (3) Thermal Resistance test performed in accordance with JESD-51.
- (4) Device mounted on 75mm x 75mm x 2mm Cu Plate Heatsink.

**REV-0, Jul-2019, KSDA09**

# RATING AND CHARACTERISTIC CURVES SPG1610AC



FIG.1- FORWARD CURRENT DERATING CURVE

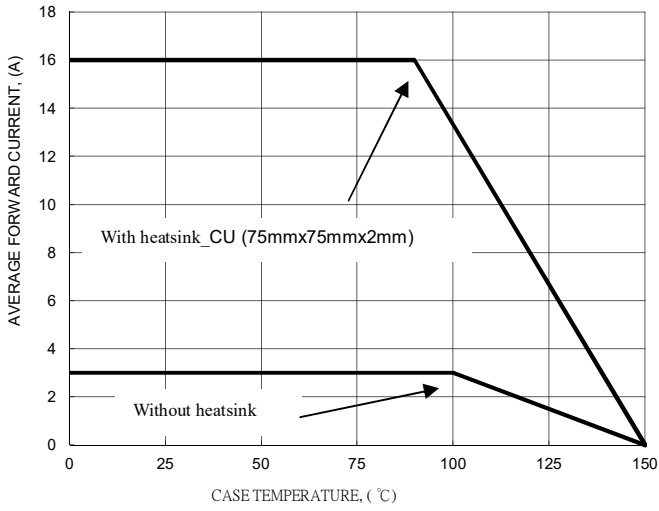


FIG.2- MAXIMUM NON-REPETITIVE SURGE CURRENT

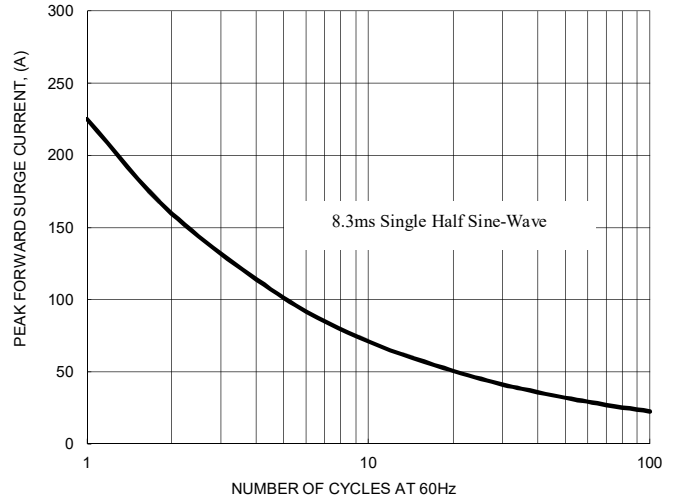


FIG.3- TYPICAL FORWARD CHARACTERISTICS

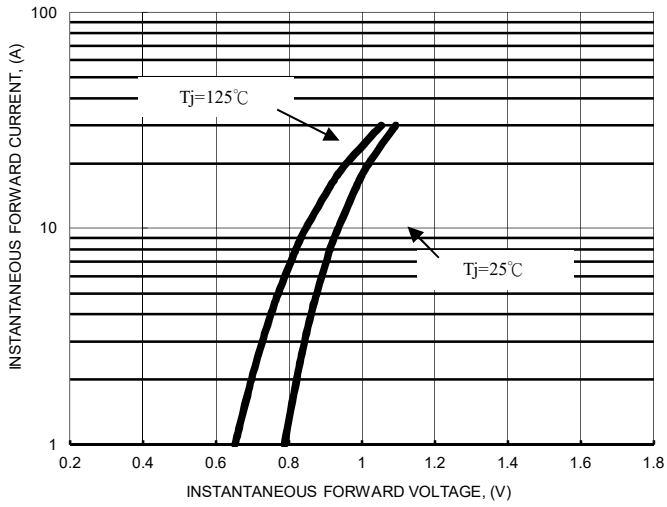


FIG.4- TYPICAL JUNCTION CAPACITANCE

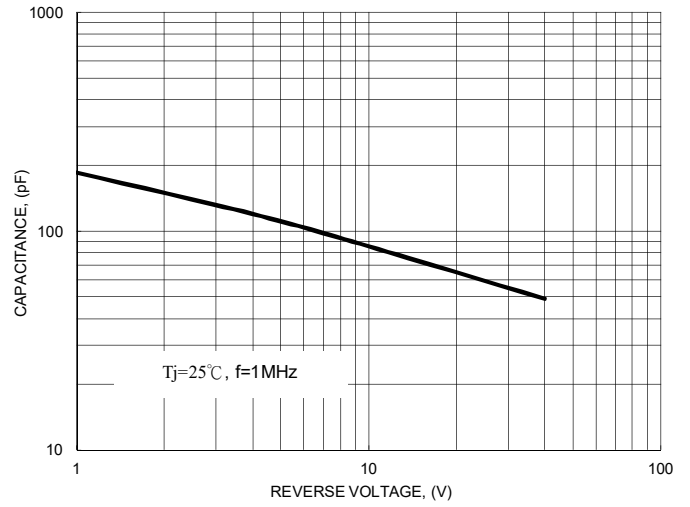
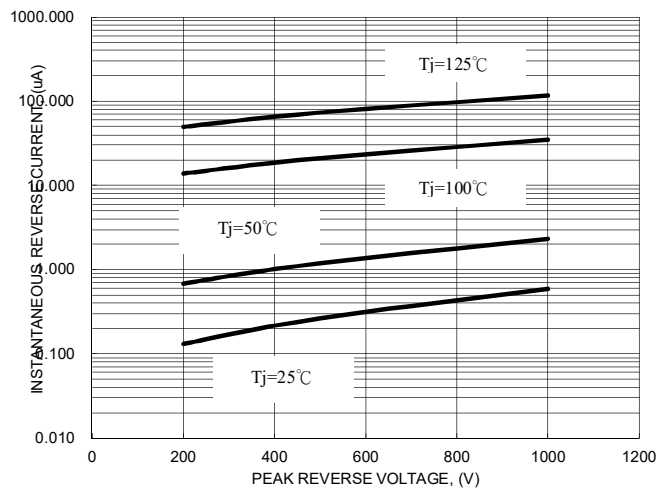


FIG.5- TYPICAL REVERSE CHARACTERISTICS



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