

## GLASS PASSIVATED SUPER FAST RECTIFIER

### Features:

- High efficiency, low VF
- High current capability
- High surge current capability
- Low power loss
- Compliant to RoHS Directive 2011/65/EU and in accordance to WEEE 2002/96/EC
- Halogen-free according to IEC61249-2-21

### Mechanical Data:

**Case:** ITO-220AB

Molding compound: UL flammability classification rating 94V-0 Part no. with suffix "H" means AEC-Q101 qualified

Packing code with suffix "G" means green compound (halogen-free)

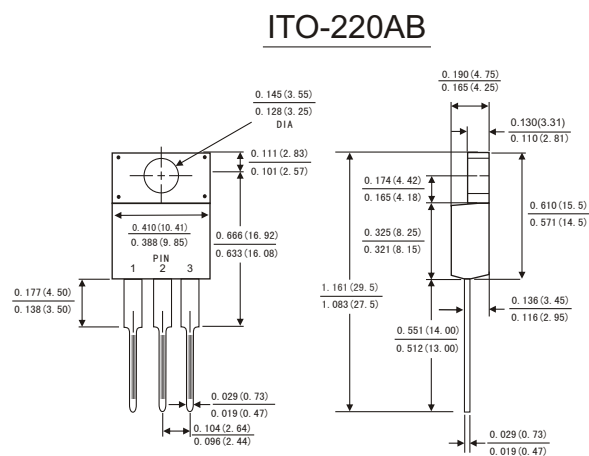
**Terminal:** Matte tin plated leads, solderable per JESD22-B102

Meet JESD 201 class 2 whisker test

**Polarity:** As marked

**Mounting torque:** 0.56 Nm max.

**Weight:** 1.82 g (approximately)



Dimensions in inches and (millimeters)

### MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS ( $T_A=25^\circ\text{C}$ unless otherwise noted)

PARAMETER	SYMBOL	KMURF 2005 CT	KMURF 2010 CT	KMURF 2015 CT	KMURF 2020 CT	KMURF 2030 CT	KMURF 2040 CT	KMURF 2050 CT	KMURF 2060 CT	UNIT
Maximum repetitive peak reverse voltage	$V_{RRM}$	50	100	150	200	300	400	500	600	V
Maximum RMS voltage	$V_{RMS}$	35	70	105	140	210	280	350	480	V
Maximum DC blocking voltage	$V_{DC}$	50	100	150	200	300	400	500	600	V
Maximum average forward rectified current	$I_{F(AV)}$	20								A
Peak forward surge current, 8.3 ms single half sine-wave superimposed on rated load	$I_{FSM}$	150								A
Maximum instantaneous forward voltage (Note 1) @ 10 A	$V_F$	0.975			1.3		1.7			V
Maximum reverse current @ rated $V_R$	$I_R$	5								$\mu\text{A}$
		400								
Maximum reverse recovery time (Note 2)	$t_{rr}$	35								ns
Typical junction capacitance (Note 3)	$C_J$	80								pF
Typical thermal resistance	$R_{\theta JC}$	2.5								$^\circ\text{C/W}$
Operating junction temperature range	$T_J$	- 55 to +150								$^\circ\text{C}$
Storage temperature range	$T_{STG}$	- 55 to +150								$^\circ\text{C}$

Note 1: Pulse test with  $PW=300\mu\text{s}$ , 1% duty cycle

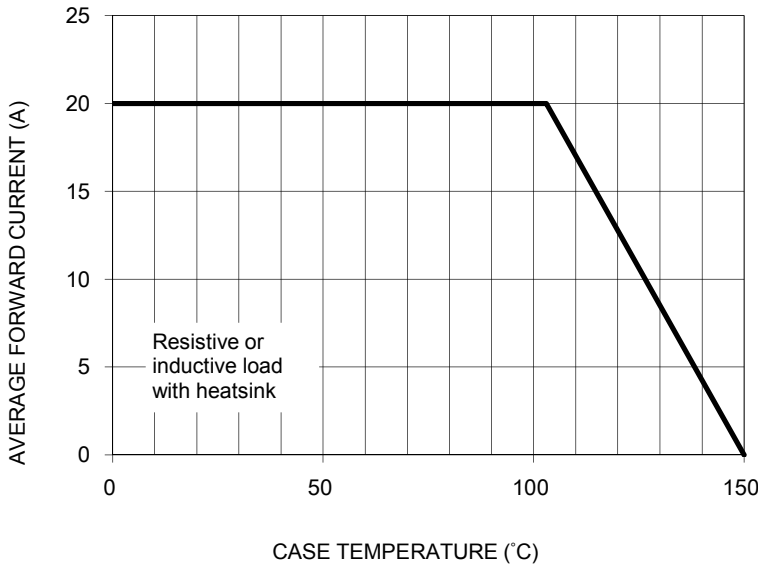
Note 2: Test conditions:  $I_F=0.5\text{A}$ ,  $I_R=1.0\text{A}$ ,  $I_{RR}=0.25\text{A}$

Note 3: Measured at 1 MHz and applied reverse voltage of 4.0 V DC.

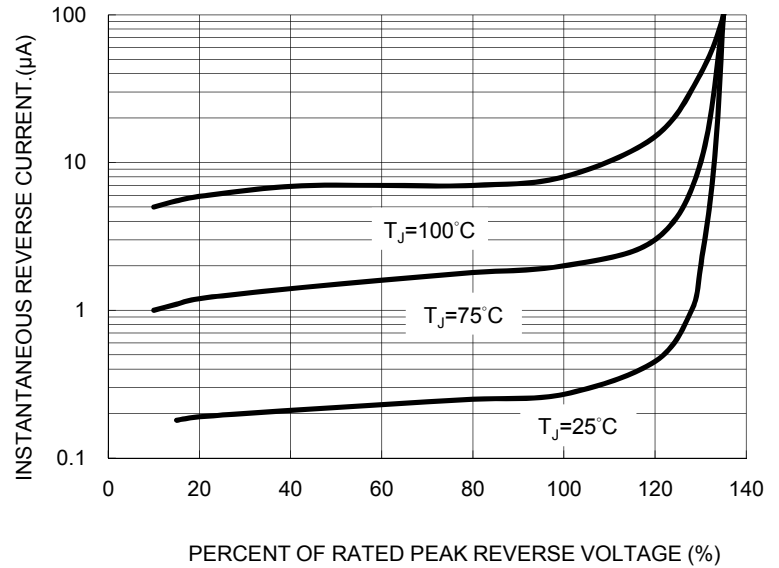
**RATINGS AND CHARACTERISTICS CURVES**

( $T_A=25^{\circ}\text{C}$  unless otherwise noted)

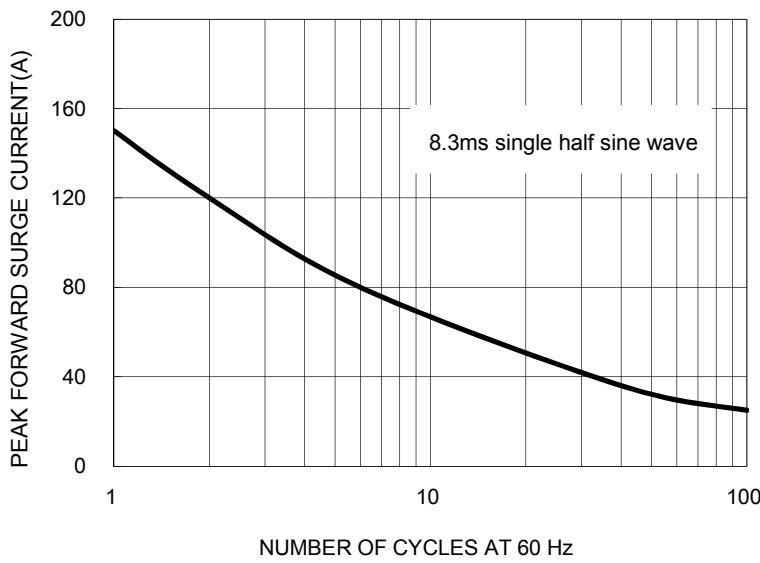
**FIG. 1 MAXIMUM FORWARD CURRENT DERATING CURVE**



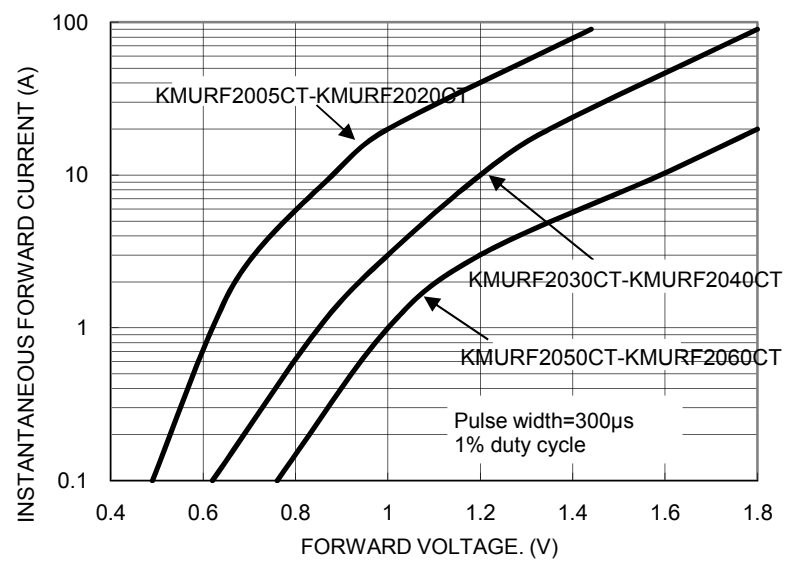
**FIG. 2 TYPICAL REVERSE CHARACTERISTICS PER LEG**



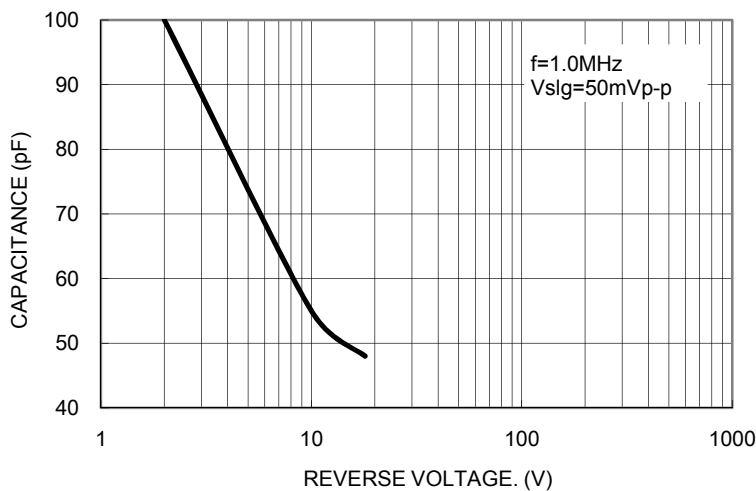
**FIG. 3 MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT PER LEG**



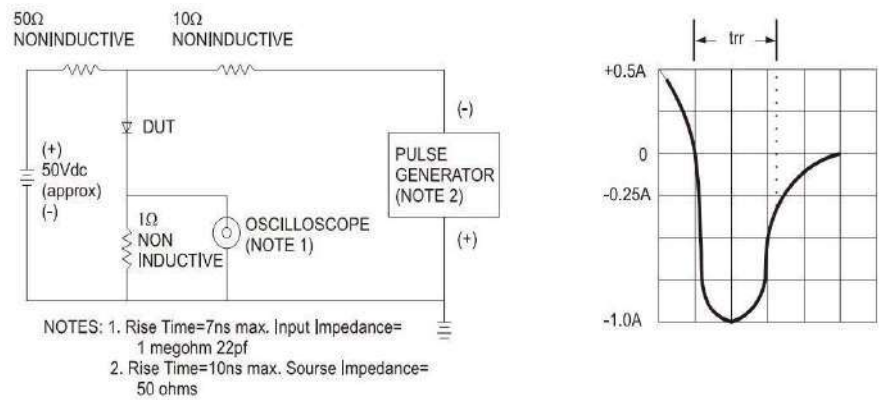
**FIG. 4 TYPICAL FORWARD CHARACTERISTICS PER LEG**



**FIG. 5 TYPICAL JUNCTION CAPACITANCE PER LEG**

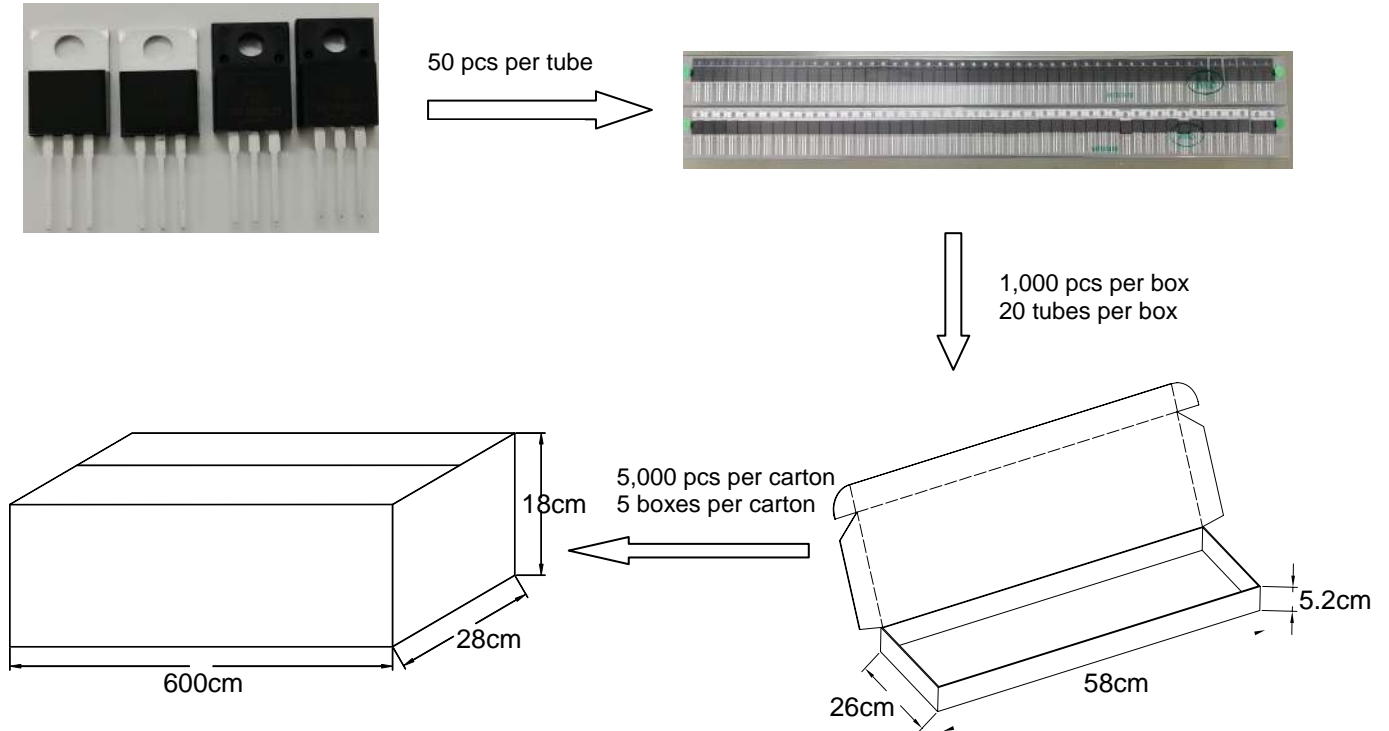


**FIG. 6 REVERSE RECOVERY TIME CHARACTERISTIC AND TEST CIRCUIT DIAGRAM**

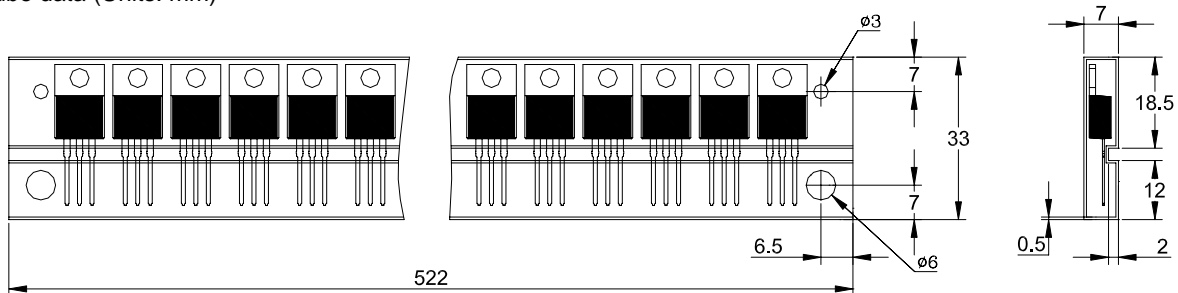


## Packaging Specifications of Tube Pack for TO-220AB and ITO-220AB

1. The method of packaging and dimension are shown as below figure. (Dimension in mm)



2. Tube data (Units: mm)



### Storage

1 It is recommended to store the products in the following conditions:

Humidity: 75% R.H. Max.

Temperature : 0°C ~35°C (32°F ~95°F)

2 Shelf life : 12 month at < 0°C ~35°C (32°F ~95°F) and < 75% R.H.