

**VOLTAGE RANGE: 100 - 1000V**

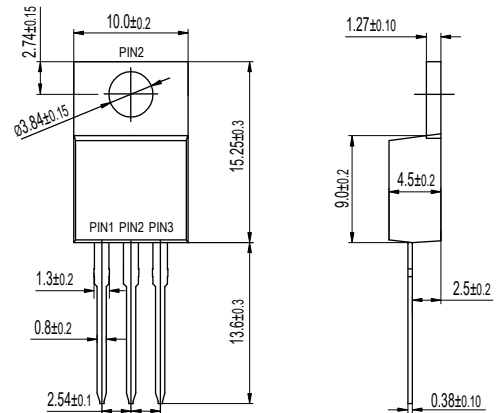
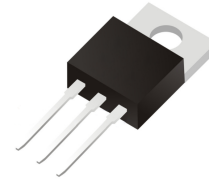
**CURRENT: 16A**

### Features

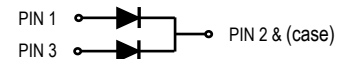
- Glass passivated chip junctions
- Low reverse current operation
- High Junction Temperature
- Fast recovery time for switchin
- High Forward Surge Capability
- Lead free in compliance with EU RoHS 2011/65/EU directive

### Mechanical Data

- Circuit figure: Common cathode
- Leads: Solderable per mil-std-202, Method 208
- Polarity: as marked
- Mounting torque: 5 in-lbs maximum
- Terminals: Puretin plated
- Weight: TO-220AB 1.85 grams



TO-220AB



### Maximum Ratings And Electrical Characteristics $T_A = 25^\circ\text{C}$

RATINGS	SYMBOL	FR 1601CT	FR 1602CT	FR 1604CT	FR 1606CT	FR 1608CT	FR 1610CT	UNIT
Maximum repetitive reverse voltage	$V_{RRM}$	100	200	400	600	800	1000	V
Maximum RMS voltage	$V_{RMS}$	70	140	280	420	560	700	V
Maximum DC blocking voltage	VDC	100	200	400	600	800	1000	V
Maximum average forward current per device per diode	$I_{AV}$	16 8						A
Peak forward surge current, 8.3ms single half sine-wave superimposed on rated load	$I_{FSM}$	200						A
Typical thermal resistance per diode (Note 1)	$R_{\theta-JC}$	2.5						$^\circ\text{C}/\text{W}$
Operating junction temperature range	$T_J$	-55 to +150						$^\circ\text{C}$
Storage temperature range	$T_{STG}$	-55 to +150						$^\circ\text{C}$
Maximum forward voltage per leg at 8A	$V_F$	1.30						V
Maximum average reverse current at rated DC blocking voltage $T_J=25^\circ\text{C}$ $T_J=125^\circ\text{C}$	$I_R$	10 250						$\mu\text{A}$
Maximum reverse recovery time (Note 2)	$T_{RR}$	150			250		500	nS

Notes: 1. Thermal resistance from junction to case.  
 2. Test conditions:  $I_F=0.5\text{A}$ ,  $I_R=1.0\text{A}$ ,  $I_{RR}=0.25\text{A}$ .

FIG. 1 - TYPICAL FORWARD CURRENT DERATING CURVE

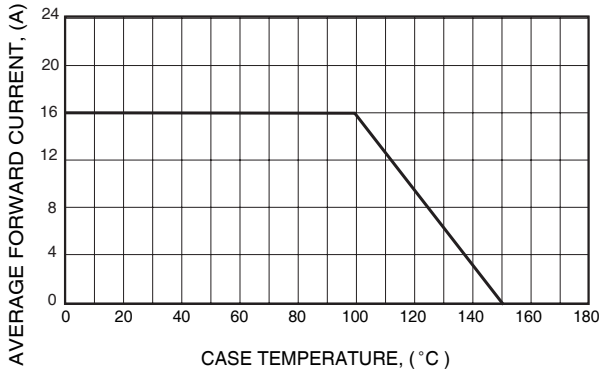


FIG. 3 - MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

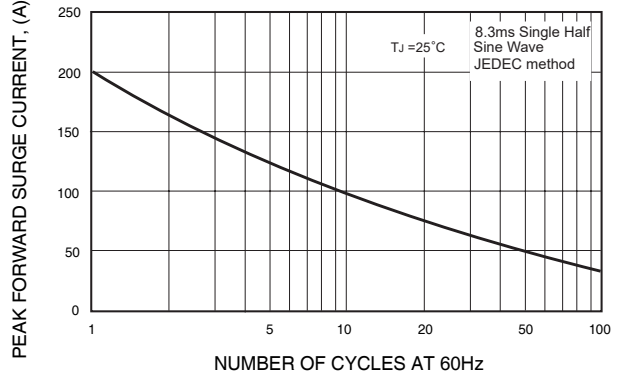


FIG. 4 - TYPICAL REVERSE CHARACTERISTICS

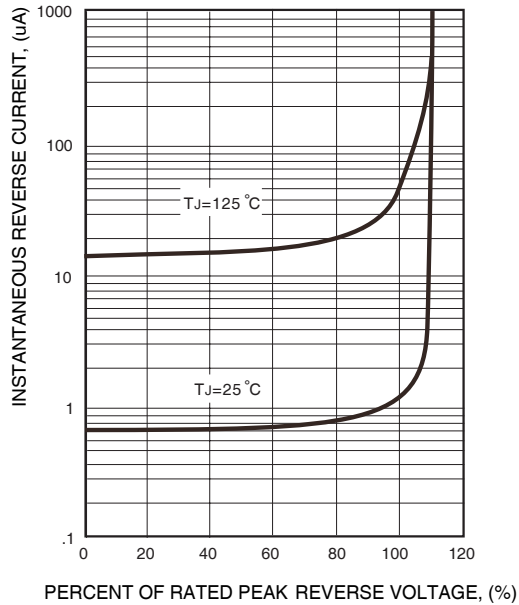


FIG. 2 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

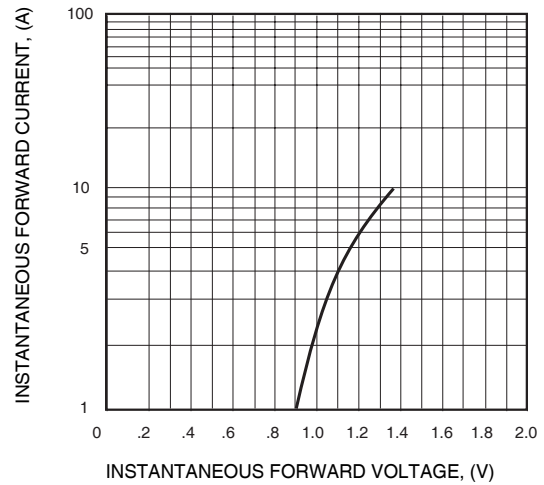
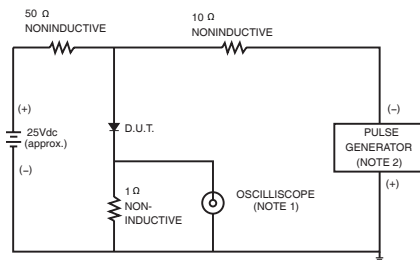


FIG.6- TEST CIRCUIT DIAGRAM AND REVERSE RECOVERY TIME CHARACTERISTICS



NOTES: 1. Rise Time= 7ns max., Input Impedance= 1 megohm, 22pF.  
 2. Rise Time= 10ns max., Source Impedance= 50 ohms.

