

**SUPER FAST  
GLASS PASSIVATED RECTIFIER**

**REVERSE VOLTAGE – 600Volts  
FORWARD CURRENT – 10 Amperes**

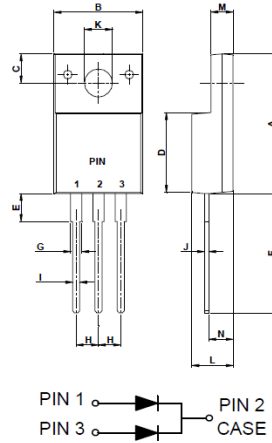
**FEATURES**

- Glass passivated chip
- Superfast switching time for high efficiency
- Low forward voltage drop and high current capability
- Low reverse leakage current
- High surge capacity
- Plastic package has UL flammability classification
- 94V-0
- **Lead-Free Finish; RoHS Compliant (Notes 1 & 2)**
- **Halogen and Antimony Free. “Green” Device (Note 3)**

**MECHANICAL DATA**

- Package : ITO-220AB molded plastic
- Polarity : As marked on the body
- Weight : 0.06 ounces, 1.70 grams
- Mounting position : Any
- Max. mounting torque = 0.5 N.m (5.1 Kgf.cm)

**ITO-220AB**



ITO-220AB		
DIM.	MIN.	MAX.
A	15.50	16.50
B	10.0	10.40
C	3.00	3.50
D	9.00	9.30
E	2.90	3.60
F	13.46	14.22
G	1.15	1.70
H	2.40	2.70
I	0.75	1.00
J	0.45	0.70
K	3.00 $\varnothing$	3.30 $\varnothing$
L	4.36	4.77
M	2.48	2.80
N	2.50	2.80

All Dimensions in millimeter

**MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS**

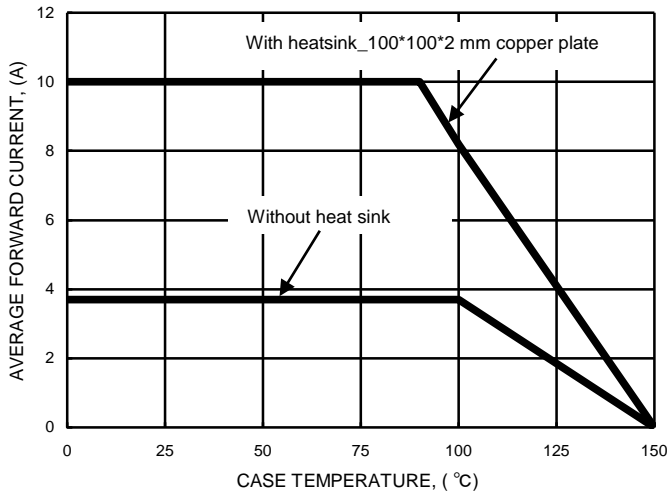
Ratings at 25°C ambient temperature unless otherwise specified.

CHARACTERISTICS			SYMBOL	STPF1060CT	UNIT
Device marking code			Note	STPF1060CT	---
Maximum Repetitive Peak Reverse Voltage			$V_{RRM}$	600	V
Average Rectified Output Current See FIG.1			$I_F$	10	A
Peak Forward Surge Current 8.3ms single half sine-wave			$I_{FSM}$	55	A
Breakdown voltage	$I_R=10\mu A$	$T_j=25^\circ C$	$V_B$	600	V
Forward Voltage (Note 4)	$I_F=5A$	$T_j=25^\circ C$ $T_j=125^\circ C$	$V_F$	1.5 1.4	V
	$I_F=10A$	$T_j=25^\circ C$ $T_j=125^\circ C$		1.7 1.6	
				10 250	
Leakage Current	$V_R=600V$	$T_j=25^\circ C$ $T_j=100^\circ C$	$I_R$		$\mu A$
Reverse recovery time	$I_F=0.5A$ $I_{rr}=0.25A$ $I_R=1.0A$	$T_j=25^\circ C$	$t_{rr}$	50	ns
Typical Junction Capacitance	$V_R=4V$ Freq.=1MHz	$T_j=25^\circ C$	$C_j$	30	pF
Typical thermal resistance, Junction to Case (Note 5)			$R_{\theta JC}$	3.5	$^\circ C/W$
Operating and Storage junction temperature range			$T_J, T_{STG}$	-55 to +150	$^\circ C$

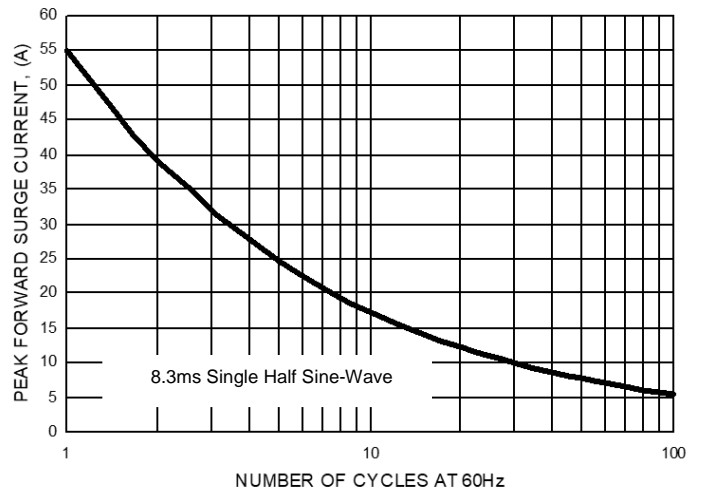
- Notes:
1. EU Directive 2002/95/EC (RoHS), 2011/65/EU (RoHS 2) & 2015/863/EU (RoHS 3) compliant. All applicable RoHS exemptions applied.
  2. See <https://www.diodes.com/quality/lead-free/> for more information about Diodes Incorporated's definitions of Halogen- and Antimony-free, "Green" and Lead-free.
  3. Halogen- and Antimony-free "Green" products are defined as those which contain <900ppm bromine, <900ppm chlorine (<1500ppm total Br + Cl) and <1000ppm antimony compounds.
  4. 300us Pulse Width, 2% Duty Cycle.
  5. Thermal Resistance test performed in accordance with JESD-51.  $R_{\theta JL}$  is measured at the PIN 2,  $R_{\theta JC}$  is measured at the top centre of body.

**RATING AND CHARACTERISTIC CURVES  
STPF1060CT**

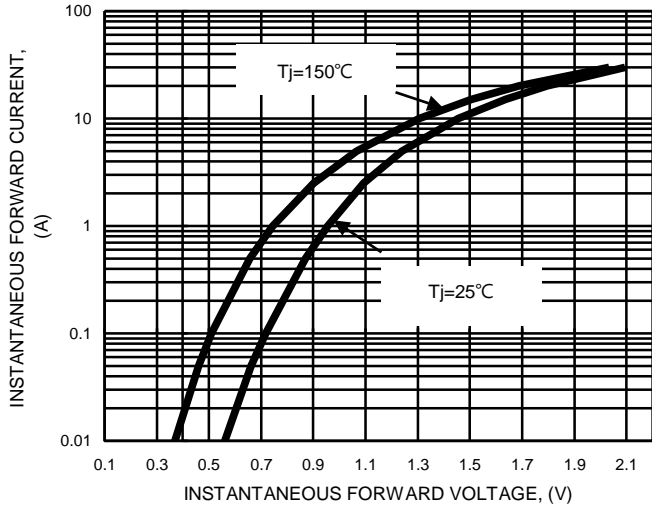
**FIG.1- FORWARD CURRENT DERATING CURVE**



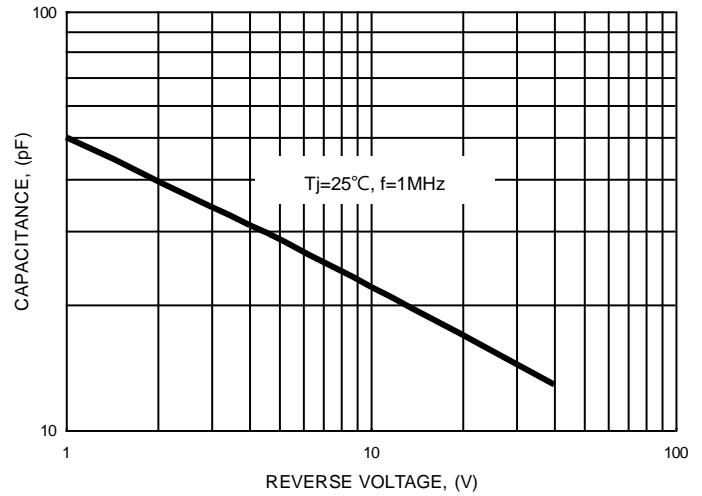
**FIG.2- MAXIMUM NON-REPETITIVE SURGE CURRENT**



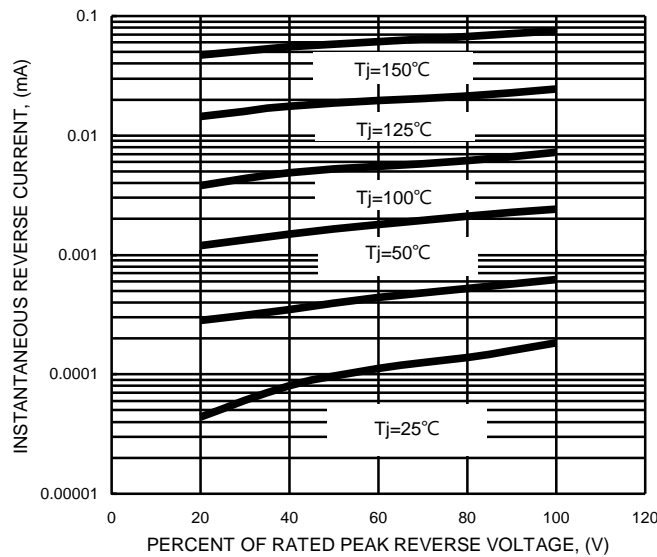
**FIG.3- TYPICAL FORWARD CHARACTERISTICS**



**FIG.4- TYPICAL JUNCTION CAPACITANCE**



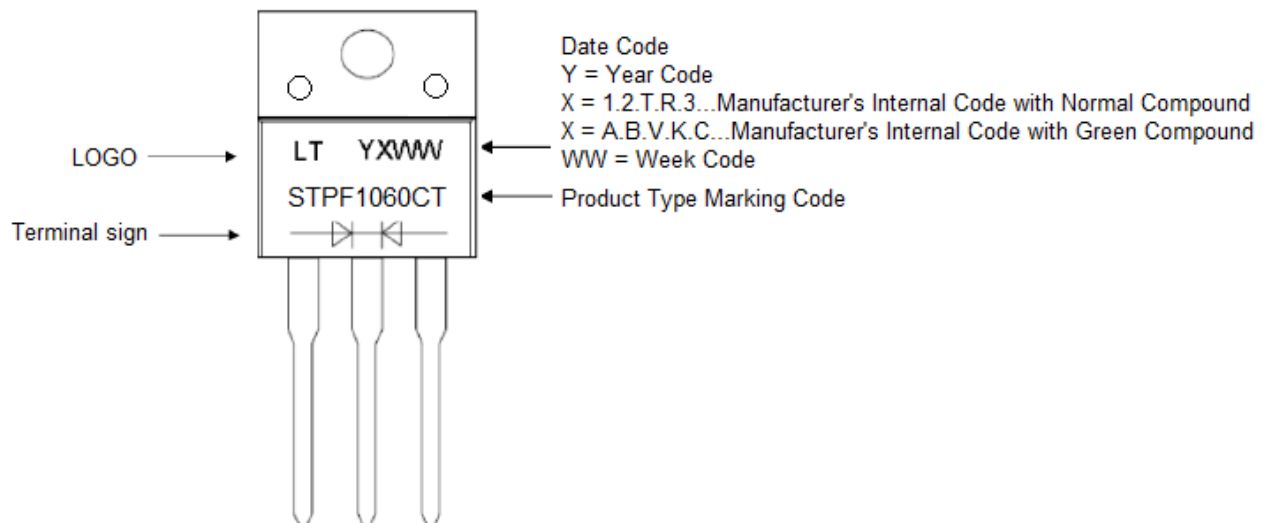
**FIG.5- TYPICAL REVERSE CHARACTERISTICS**



### Ordering Information:

Part Number	Package	Packing	
		Qty.	Carrier
STPF1060CT	ITO-220AB	50	Tube

### Marking Information:



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