STPF1060CT

SUPER FAST GLASS PASSIVATED RECTIFIER

REVERSE VOLTAGE – 600Volts FORWARD CURRENT – 10 Amperes

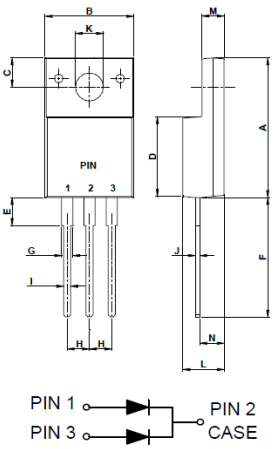
FEATURES

- 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 ⌀	3.30 ⌀
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	IR=10uA	Tj=25°C	V_B	600	V
Forward Voltage (Note 4)	IF=5A	Tj=25°C Tj=125°C	V_F	1.5 1.4	V
	IF=10A	Tj=25°C Tj=125°C		1.7 1.6	
Leakage Current	VR=600V	Tj=25°C Tj=100°C	I_R	10 250	uA
Reverse recovery time	IF= 0.5A Irr= 0.25A IR =1.0A	Tj=25°C	t_{rr}	50	ns
Typical Junction Capacitance	VR=4V Freq.=1MHz	Tj=25°C	Cj	30	pF
Typical thermal resistance, Junction to Case (Note 5)			$R_{\Theta JC}$	3.5	°C/W
Operating and Storage junction temperature range			T_J,T_{STG}	-55 to +150	°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.

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RATING AND CHARACTERISTIC CURVES
STPF1060CT

FIG.1- FORWARD CURRENT DERATING CURVE

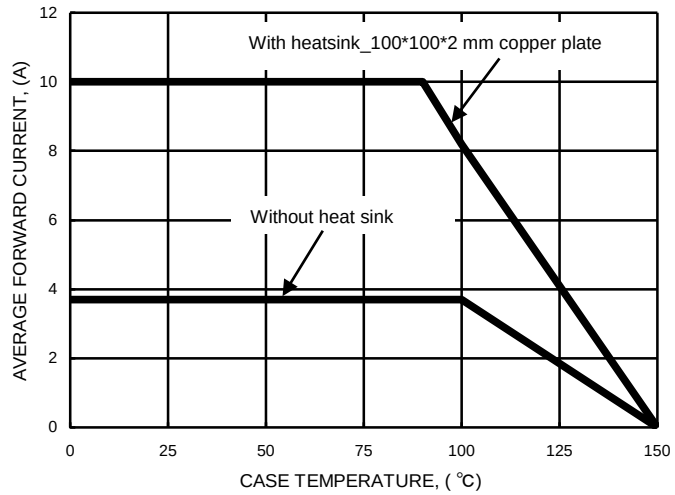


FIG.2- MAXIMUM NON-REPETITIVE SURGE CURRENT

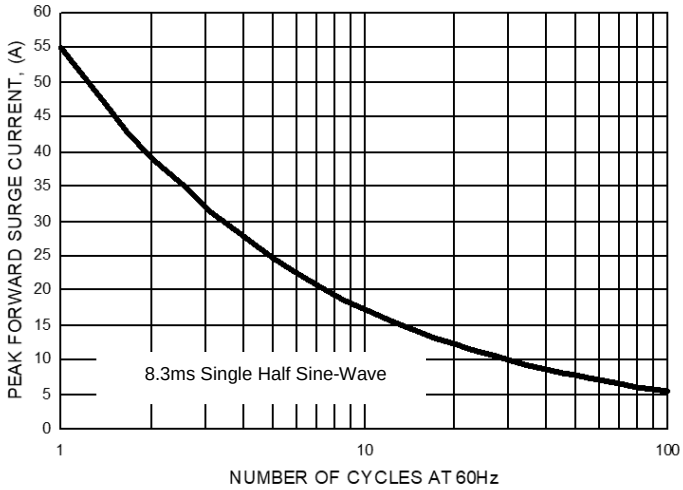


FIG.3- TYPICAL FORWARD CHARACTERISTICS

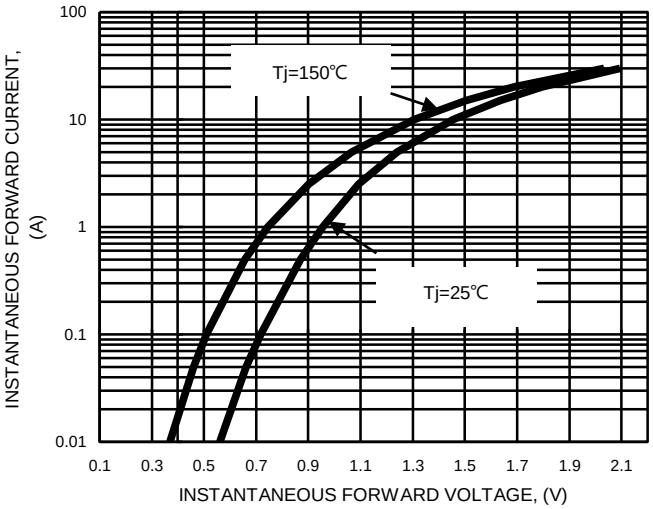


FIG.4- TYPICAL JUNCTION CAPACITANCE

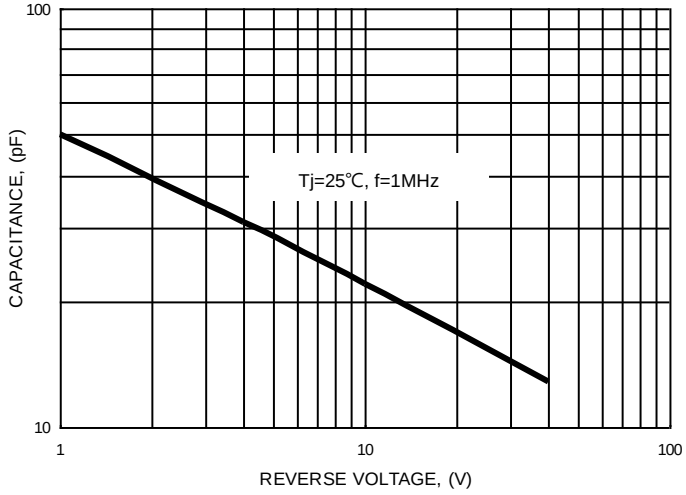
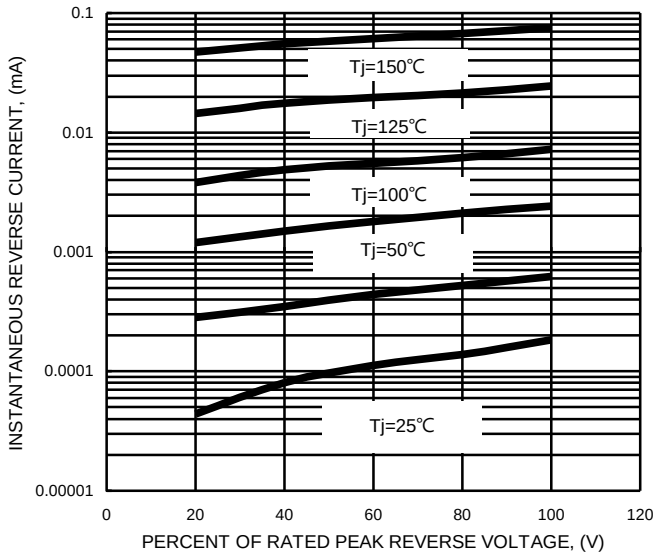


FIG.5- TYPICAL REVERSE CHARACTERISTICS

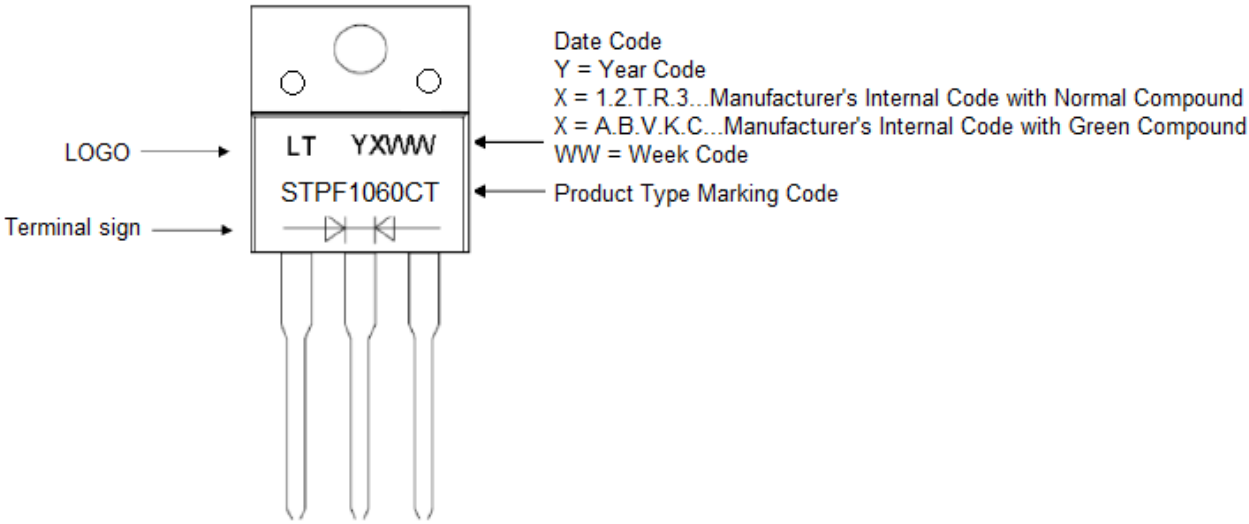


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Ordering Information:

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

Marking Information:



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