

**SUPER FAST
GLASS PASSIVATED RECTIFIER**

**REVERSE VOLTAGE – 400 Volts
FORWARD CURRENT – 10 Amperes**

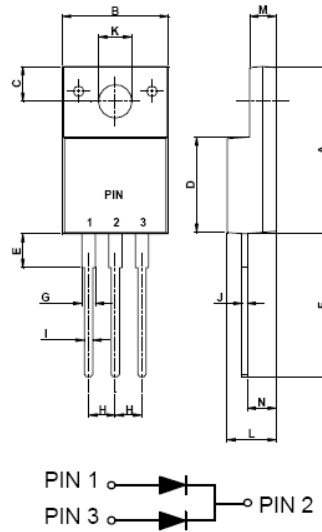
FEATURES

- 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
- ITO-220AB
 - **Lead-Free Finish; RoHS Compliant (Notes 1 & 2)**
- Available in “Green” Package: ITO-220AB
 - **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	STPF1040CT	UNIT	
Device marking code		Note	STPF1040CT	---	
Maximum Repetitive Peak Reverse Voltage		V_{RRM}	400	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	$I_R=50\mu A$	V_B	400	V	
	$T_j=25^\circ C$				
	$T_j=125^\circ C$				
Forward Voltage (Note 4)	$I_F=5A$	V_F	1.3	V	
	$T_j=25^\circ C$		1.2		
	$T_j=125^\circ C$		1.5		
Leakage Current	$V_R=400V$	I_R	10	uA	
			$T_j=100^\circ C$		250
Reverse recovery time	$I_F=0.5A$ $I_{rr}=0.25A$ $I_R=1.0A$	$T_j=25^\circ C$	t_{rr}	35	ns
Junction Capacitance	$V_R=4V$ Freq.=1MHz	$T_j=25^\circ C$	C_j	TYP. 30	pF
Typical thermal resistance Junction to Case (Note 5)		$R_{\theta JC}$	4.5	°C/W	
Operating and Storage junction temperature range		T_J, T_{STG}	-55 to +150	°C	

Notes:

KTGC36

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
STPF1040CT

FIG.1- FORWARD CURRENT DERATING CURVE

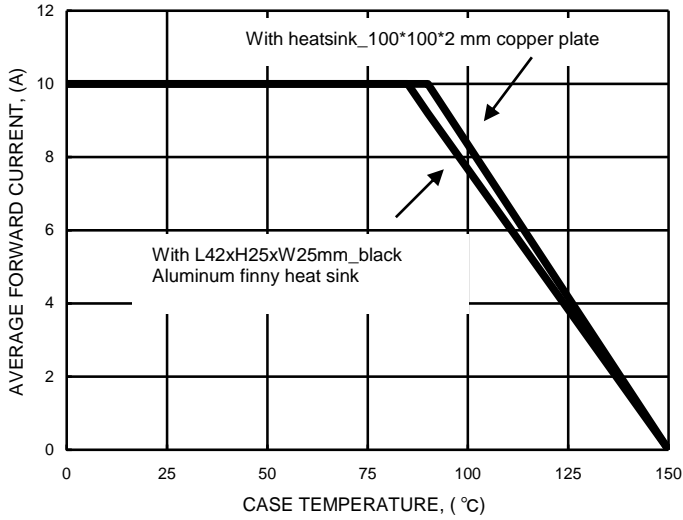


FIG.2- MAXIMUM NON-REPETITIVE SURGE CURRENT

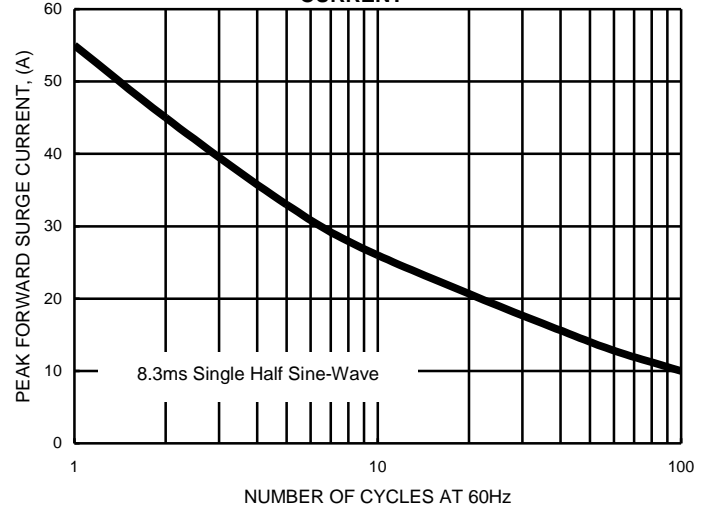


FIG.3- TYPICAL FORWARD CHARACTERISTICS

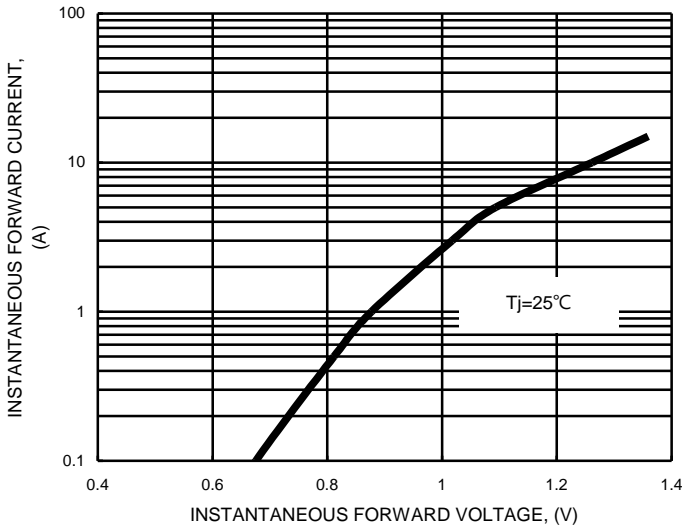


FIG.4- TYPICAL JUNCTION CAPACITANCE

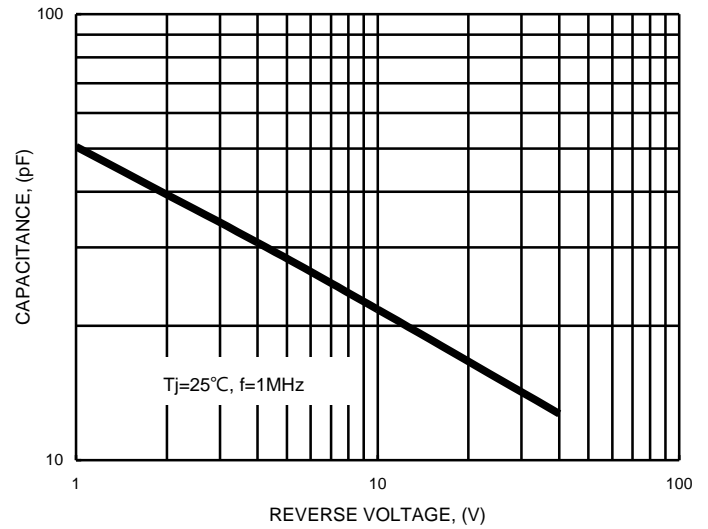
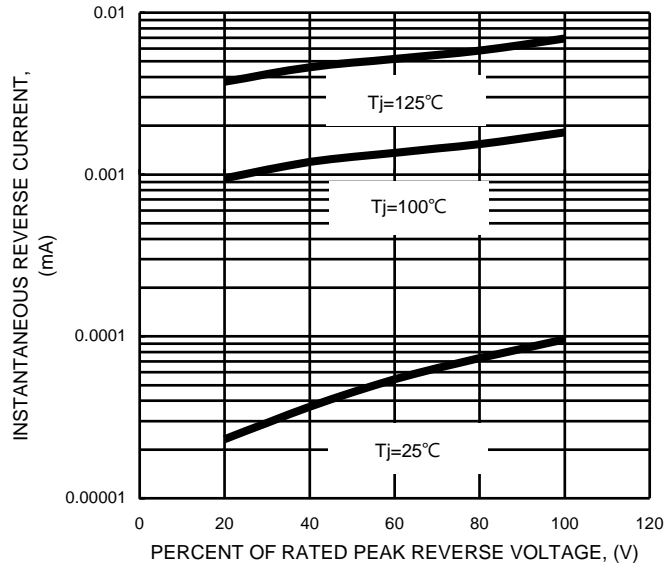


FIG.5- TYPICAL REVERSE CHARACTERISTICS

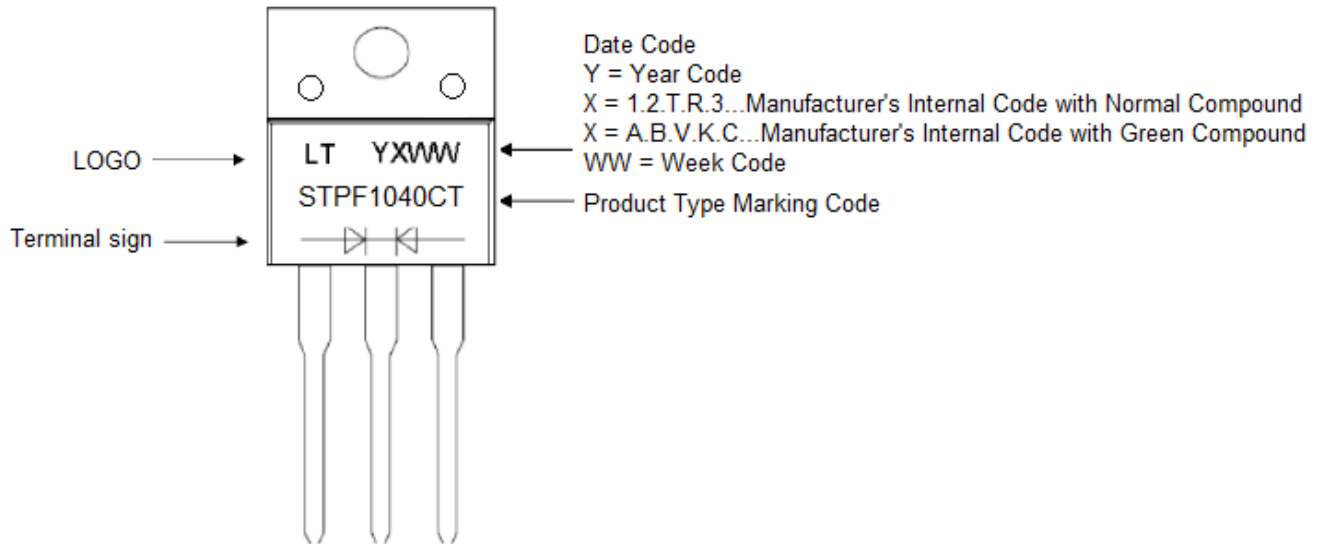


Ordering Information :

Part Number		Package	Packing	
Lead Free	Green		Qty.	Carrier
NA	STPF1040CT_HF	ITO-220AB	50	Tube
STPF1040CT	NA	ITO-220AB	50	Tube



Marking Information :



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