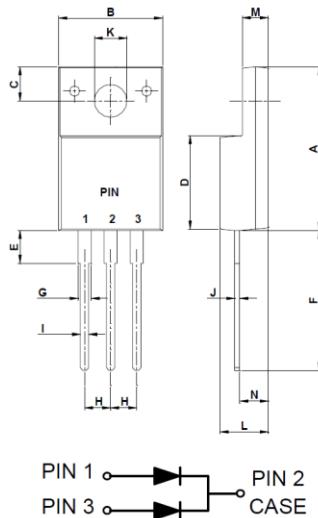


**SUPER FAST
GLASS PASSIVATED RECTIFIERS**
**REVERSE VOLTAGE – 200 Volts
FORWARD CURRENT – 20 Amperes**
FEATURES

- 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)**

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 = 0.5N.m (5.1Kgf.cm)

ITO-220AB


ITO-220AB		
DIM	MIN	MAX
A	15.50	16.50
B	10.00	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	3.00Ø	3.30Ø
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	VALUE	UNIT
Maximum Recurrent Peak Reverse Voltage		V_{RRM}	200	V
Maximum RMS Voltage		V_{RMS}	140	V
Maximum DC Blocking Voltage		V_{DC}	200	V
Maximum Average Forward Rectified Current @ $T_c = 105^\circ\text{C}$		$I_{(AV)}$	20	A
Peak Forward Surge Current 8.3ms Single Half Sine-Wave @ $T_J = 25^\circ\text{C}$		I_{FSM}	125	A
Maximum Forward Voltage at Pulse Width = 300us 2% Duty Cycle	$I_F = 10\text{A} @ T_J = 25^\circ\text{C}$ $I_F = 10\text{A} @ T_J = 125^\circ\text{C}$ $I_F = 20\text{A} @ T_J = 25^\circ\text{C}$ $I_F = 20\text{A} @ T_J = 125^\circ\text{C}$	V_F	1.1 1.0 1.25 1.20	V
Maximum DC Reverse Current at Rated DC Blocking Voltage	$@ T_J = 25^\circ\text{C}$ $@ T_J = 125^\circ\text{C}$	I_R	10 500	uA
Typical Junction Capacitance per Element (Note 3)		C_J	230	pF
Maximum Reverse Recovery Time (Note 4)		t_{RR}	30	ns
Typical Thermal Resistance (Note 5)		$R_{\theta JC}$	2.0	°C/W
Operating and Storage Temperature Range		T_J, T_{STG}	-55 to +150	°C
Dielectric Strength from Terminals to Case, AC with $t = 1$ Minute, RH < 30%		V_{dis}	2000	V

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. Measured at 1.0MHz and applied reverse voltage of 4.0V DC.
4. Reverse recovery test conditions: $I_F = 0.5\text{A}$, $I_R = 1.0\text{A}$, $I_{RR} = 0.25\text{A}$.
5. Device mounted on 100mm x 100mm x 2mm Cu plate.

RATING AND CHARACTERISTIC CURVES
STPF2020CT

FIG.1 - FORWARD CURRENT DERATING CURVE

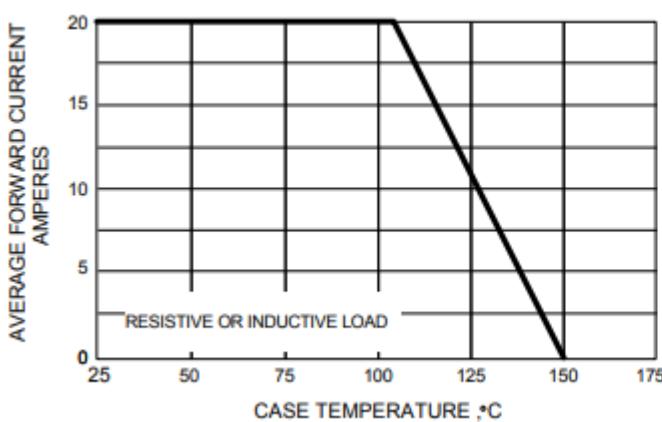


FIG.2 - MAXIMUM NON-REPETITIVE SURGE CURRENT

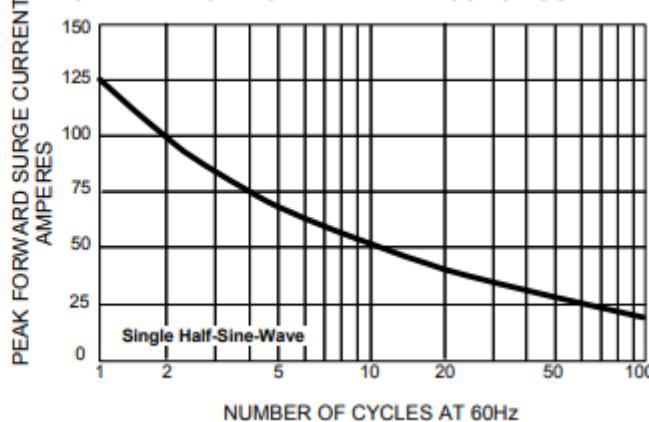


FIG.3 - TYPICAL REVERSE CHARACTERISTICS

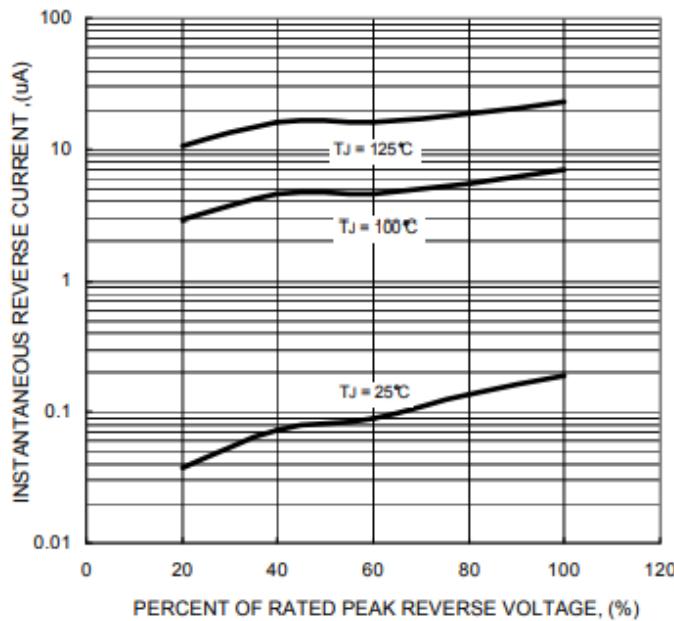


FIG.4 - TYPICAL FORWARD CHARACTERISTICS

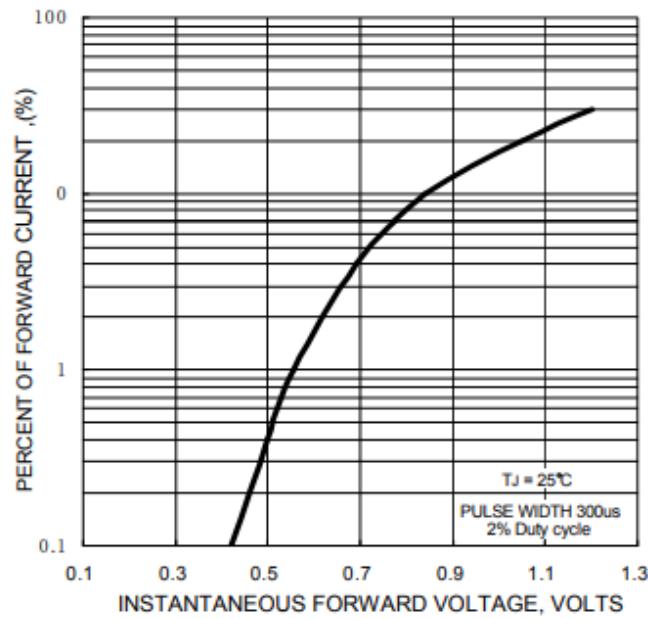
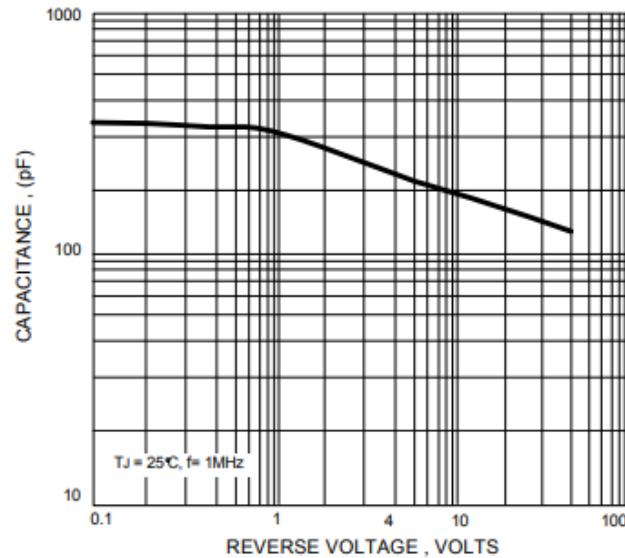
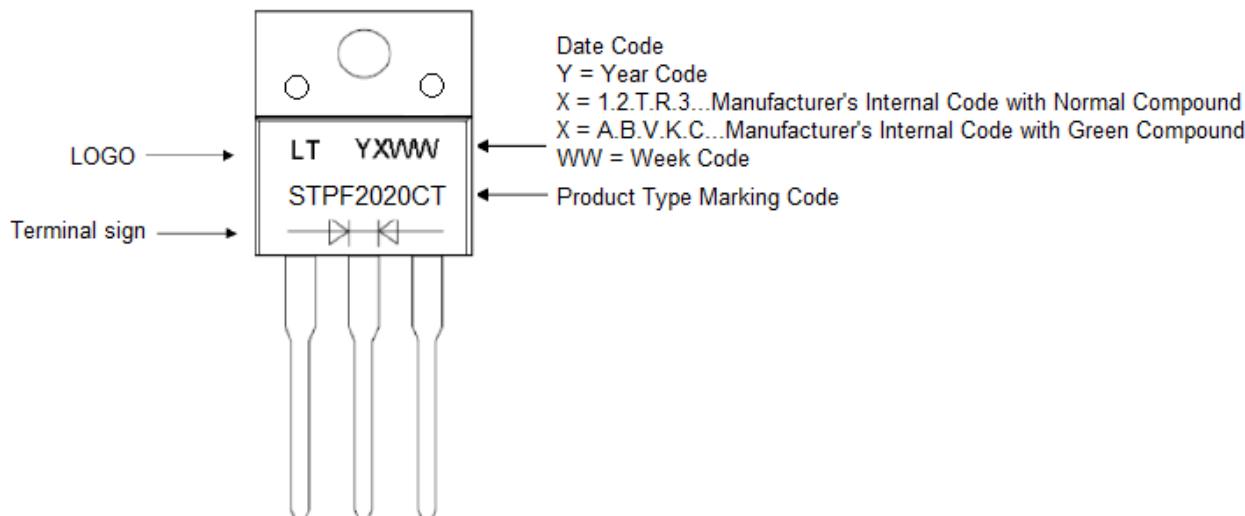


FIG.5 - TYPICAL JUNCTION CAPACITANCE



Ordering Information:

Part Number	Package	Packing	
		Qty.	Carrier
STPF2020CT	ITO-220AB	50	Tube

Marking Information:

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