



THE DATASHEET OF STPR560D



**SUPER FAST
GLASS PASSIVATED RECTIFIERS**

**REVERSE VOLTAGE – 600 Volts
FORWARD CURRENT – 5.0 Ampere**

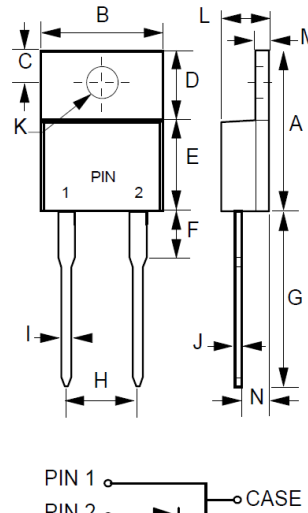
FEATURES

- 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: TO-220AC molded plastic
- Polarity: As marked on the body
- Weight: 0.08 ounces, 2.24 grams
- Mounting position: Any
- Maximum mounting torque = 0.5N.m (5.1Kgf.cm)

TO-220AC



TO-220AC		
DIM.	MIN.	MAX.
A	14.22	15.88
B	9.65	10.67
C	2.54	3.43
D	5.84	6.86
E	8.26	9.28
F	-	6.35
G	12.70	14.73
H	4.83	5.33
I	0.51	1.14
J	0.30	0.64
K	3.53 \varnothing	4.09 \varnothing
L	3.56	4.83
M	1.14	1.40
N	2.03	2.92

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}	600	V
Maximum RMS Voltage	V_{RMS}	420	V
Maximum DC Blocking Voltage	V_{DC}	600	V
Maximum Average Forward Rectified Current @ $T_c=100^\circ\text{C}$	$I_{(AV)}$	5	A
Non Repetitive Peak Forward Surge Current Per Diode $T_P=8.3\text{ms}$	I_{FSM}	55	A
Maximum Forward Voltage at 5.0A DC @ $T_j=25^\circ\text{C}$ @ $T_j=125^\circ\text{C}$	V_F	1.5 1.4	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	μA
Typical Junction Capacitance (Note 3)	C_J	78	pF
Maximum Reverse Recovery Time (Note 4)	T_{RR}	50	ns
Typical Thermal Resistance (Note 5)	$R_{\theta JC}$	4.0	$^\circ\text{C/W}$
Operating and Storage Temperature Range	T_J, T_{STG}	-55 to +150	$^\circ\text{C}$

- 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. Measured at 1.0MHz and applied reverse voltage of 4.0V DC.
 4. Reverse Recovery Test Conditions: $I_F=0.5\text{A}$, $I_R=1.0\text{A}$, $IRR=0.25\text{A}$.
 5. Thermal Resistance Junction to case.

RATING AND CHARACTERISTIC CURVES
STPR560D

FIG.1 - FORWARD CURRENT DERATING CURVE

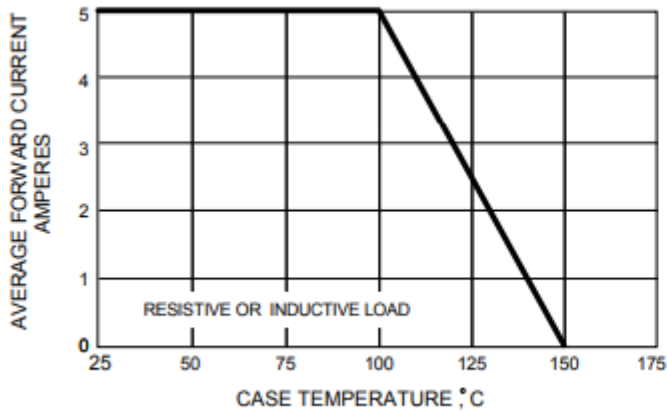


FIG.2 - MAXIMUM NON-REPETITIVE SURGE CURRENT

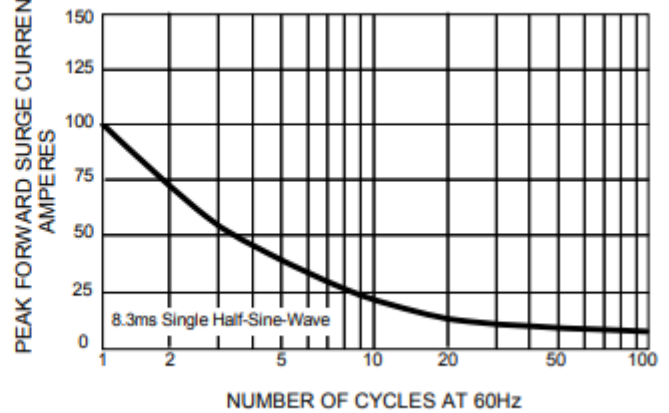


FIG.3 - TYPICAL REVERSE CHARACTERISTICS

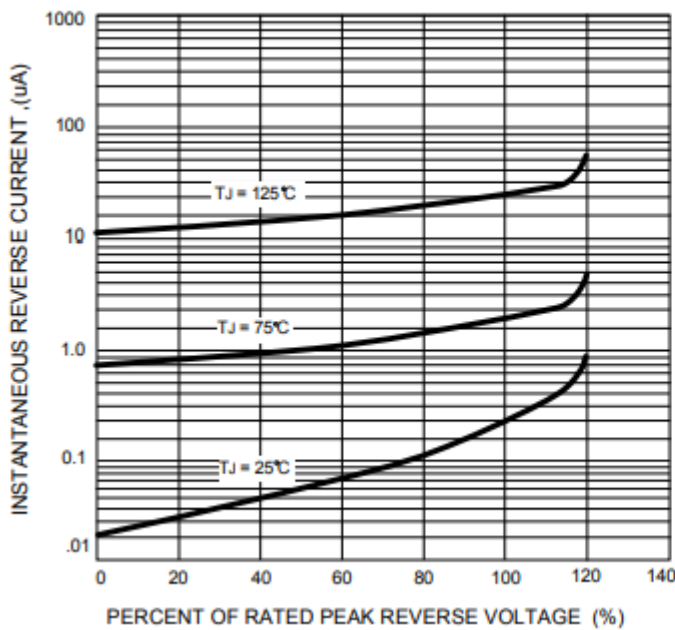


FIG.4 - TYPICAL FORWARD CHARACTERISTICS

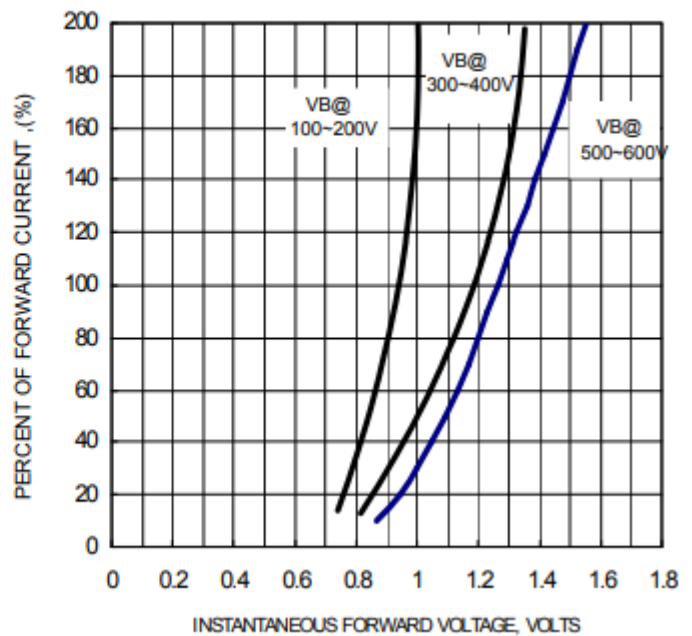
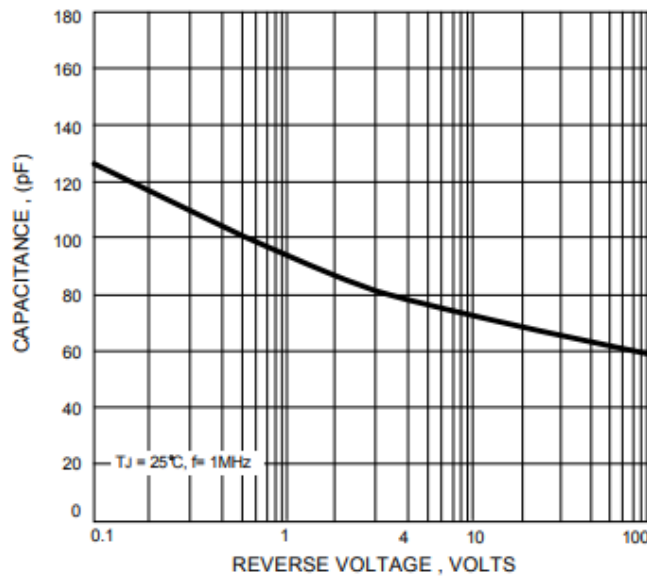


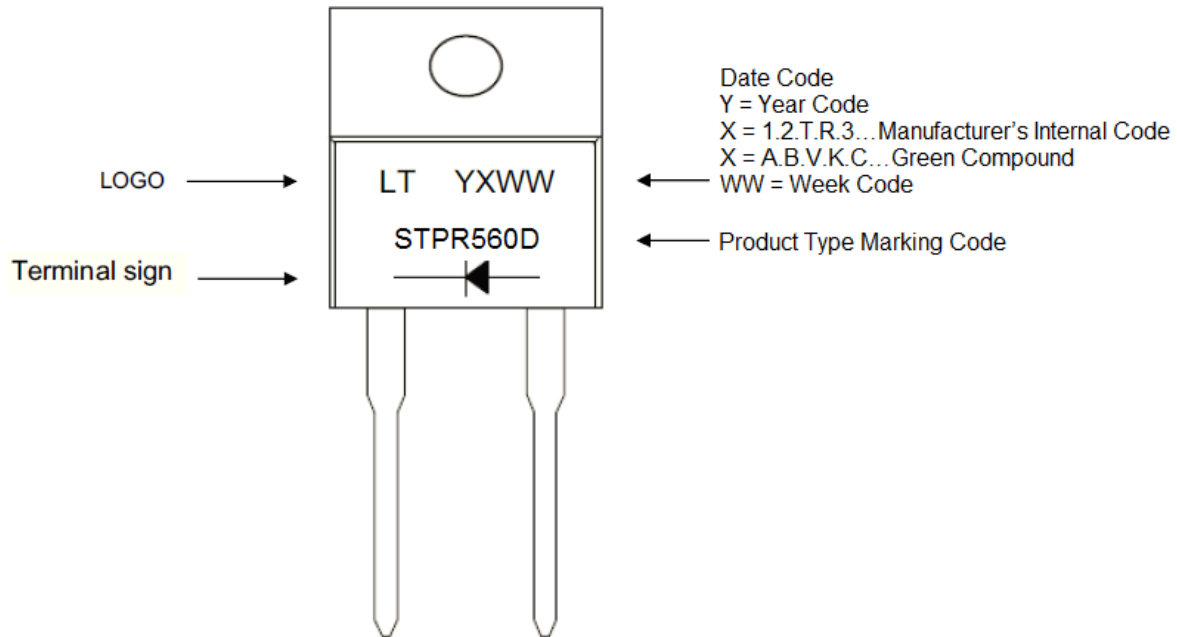
FIG.5 - TYPICAL JUNCTION CAPACITANCE



Ordering Information :

Part Number	Package	Packing	
		Qty.	Carrier
STPR560D	TO-220AC	50 pcs	Tube

Marking Information :



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