

# STPRF1605CT - STPRF1640CT

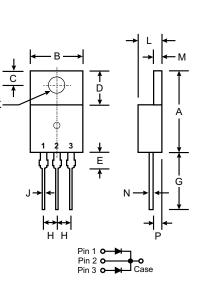
### **16A SUPER-FAST GLASS PASSIVATED RECTIFIER**

#### Features

- Glass Passivated Die Construction
- Diffused Junction
- Super-Fast Switching for High Efficiency
- High Current Capability and Low Forward Voltage Drop
- Surge Overload Rating to 200A Peak
- Low Reverse Leakage Current
- Plastic Material: UL Flammability Classification Rating 94V-0

#### **Mechanical Data**

- Case: Molded Plastic
- Terminals: Plated Leads Solderable per MIL-STD-202, Method 208
- Polarity: As Marked on Body
- Marking: Type Number
- Weight: 2.24 grams (approx.)
- Mounting Position: Any



TO-220AB						
Dim	Min	Мах				
Α	14.22	15.88				
В	9.65	10.67				
С	2.54	3.43				
D	5.84	6.86				
E	—	6.35				
G	12.70	14.73				
н	2.29	2.79				
J	0.51	1.14				
к	3.53Ø	4.09Ø				
L	3.56	4.83				
м	1.14	1.40				
N	0.30	0.64				
Р	2.03	2.92				
All Dimensions in mm						

## Maximum Ratings and Electrical Characteristics @ T<sub>A</sub> = 25°C unless otherwise specified

Single phase, single phase, 60Hz, resistive or inductive load. For capacitive load, derate current by 20%.

Characteristic	Symbol	STPRF 1605CT	STPRF 1610CT	STPRF 1615CT	STPRF 1620CT	STPRF 1630CT	STPRF 1640CT	Unit
Peak Repetitive Reverse Voltage Working Peak Reverse Voltage DC Blocking Voltage	V <sub>RRM</sub> V <sub>RWM</sub> V <sub>R</sub>	50	100	150	200	300	400	v
RMS Reverse Voltage	V <sub>R(RMS)</sub>	35	70	105	140	210	280	V
Average Rectified Output @ T <sub>C</sub> = 100°C Current (Note 1)	Ι <sub>Ο</sub>	16						Α
Non-Repetitive Peak Forward Surge Current 8.3ms single half sine-wave superimposed on rated load (JEDEC Method)	I <sub>FSM</sub>	200						А
Forward Voltage @ I <sub>F</sub> = 8.0A	V <sub>FM</sub>	0.95 1.3					V	
$\begin{array}{llllllllllllllllllllllllllllllllllll$	I <sub>RM</sub>	5.0 500						μA
Reverse Recovery Time (Note 2)	t <sub>rr</sub>	35 50					ns	
Typical Junction Capacitance (Note 3)	Cj	85						pF
Typical Thermal Resistance Junction to Case	R <sub>0JC</sub>	3.1						°C/W
Operating and Storage Temperature Range	T <sub>j,</sub> T <sub>STG</sub>	-65 to +150					°C	

Notes: 1. Case mounted on heatsink.

- 2. Measured with  $I_F$  = 0.5A,  $I_R$  = 1.0A,  $I_{rr}$  = 0.25A.
- 3. Measured at 1.0MHz and Applied Reverse Voltage of 4.0V DC.

