

Power Schottky Rectifier - 20Amp 150Volt

Features

- Plastic package has Underwriters Laboratory Flammability Classifications 94V-0
- High Junction Temperature Capability
- Low forward voltage, high current capability
- High surge capacity
- Low power loss, high efficiency

Application

- AC/DC Switching Adaptor and other Switching Power Supply
- TFT-LCD and DVD Power Supply

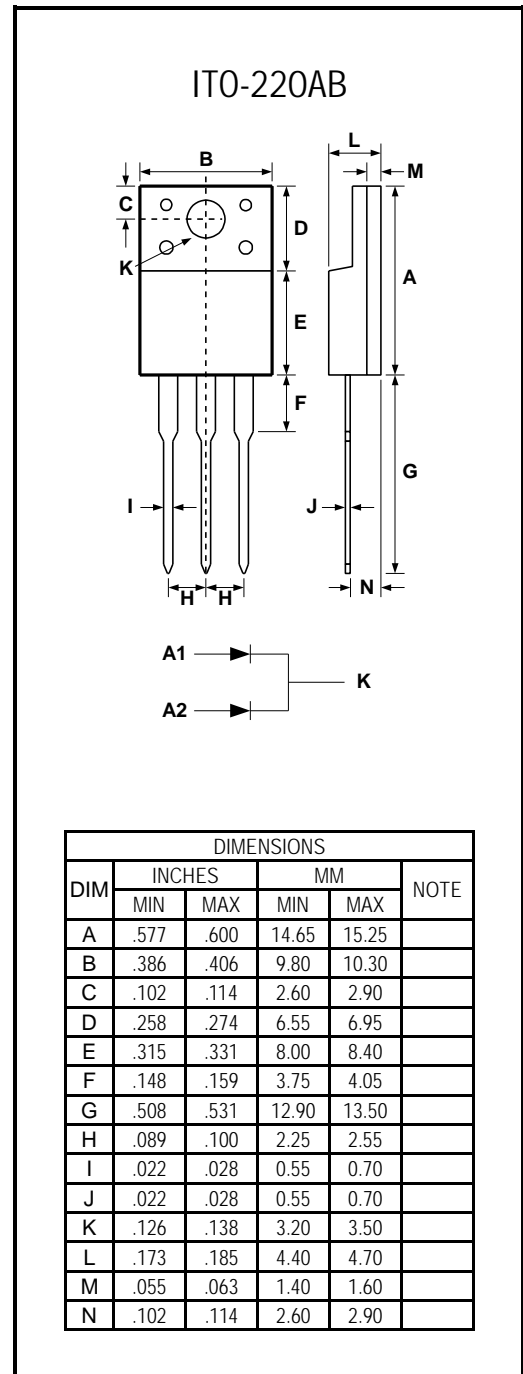
Absolute maximum ratings

Symbol	Ratings	Unit	Conditions
$I_F(AV)$	20	A	At $T_c=125^\circ C$
$V_{RRM}$	150	V	Maximum repetitive peak reverse voltage
$I_{FSM}$	150	A	8.3ms single half sine-wave single shot
$V_F(max)$	0.92	V	At $I_F=10A, T_c=25^\circ C$
$T_j$	-50 to +175	$^\circ C$	
$T_{stg}$	-50 to +150	$^\circ C$	

Electrical characteristics

Parameters	Symbol	Ratings	Conditions
Maximum Instantaneous Forward Voltage	$V_F$	0.92V	$T_c=25^\circ C$
Forward Voltage		0.75V	$T_c=125^\circ C$
Maximum Reverse Current At Rated DC Blocking Voltage	$I_R$	50 $\mu A$ 10mA	$T_c=25^\circ C$ $T_c=125^\circ C$
Voltage Rate of Change	dv/dt	10,000 V/ $\mu s$	Rated VR
Typical Thermal Resistance, Junction to Case	$R_{th(j-c)}$	4.5 $^\circ C/W$	Per diode

Note: (1)Pulse Test : 380 $\mu s$  pulse width, 2% duty cycle



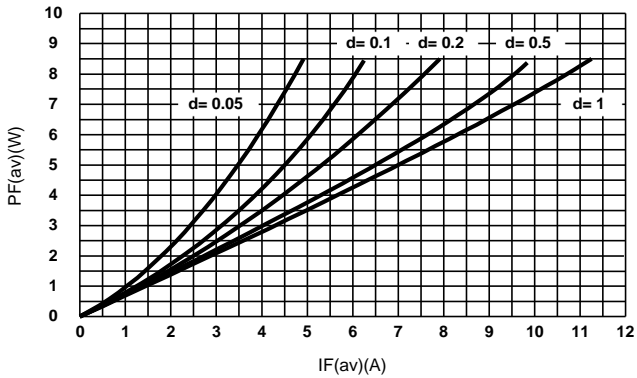


Figure 1. Average forward power dissipation versus average forward current (per diode)

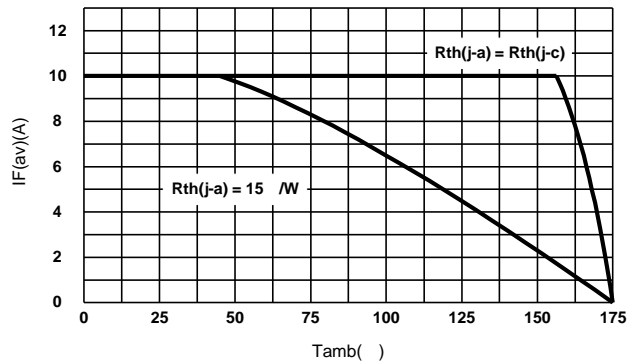


Figure 2. Average forward current versus ambient temperature (d = 0.5, per diode)

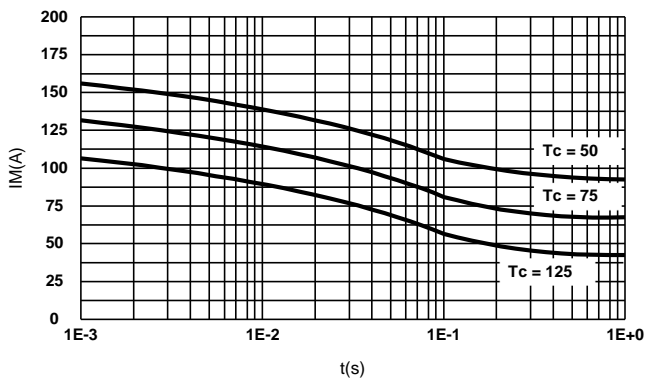


Figure 3. Non repetitive surge peak forward current versus overload duration (maximum values, per diode)

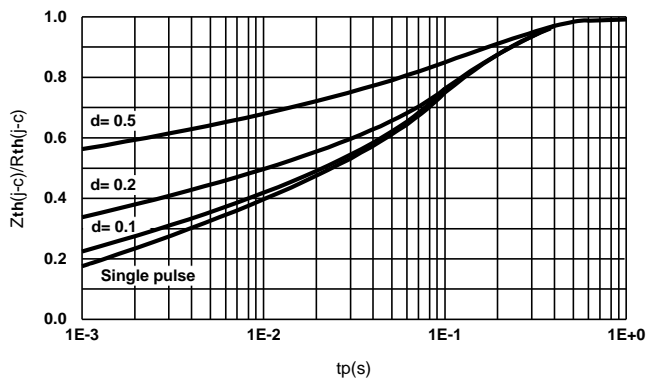


Figure 4. Relative variation of thermal impedance junction to case versus pulse duration (per diode)

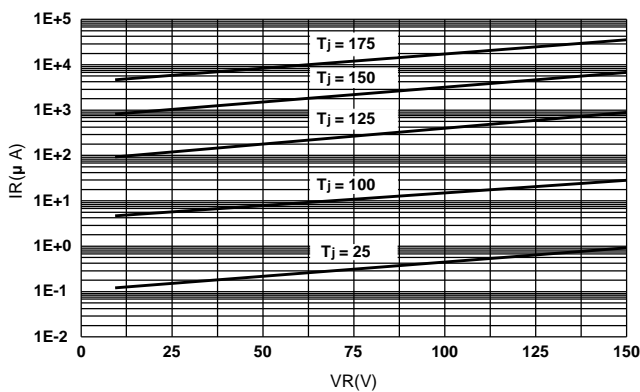


Figure 5. Reverse leakage current versus reverse voltage applied (typical values, per diode)

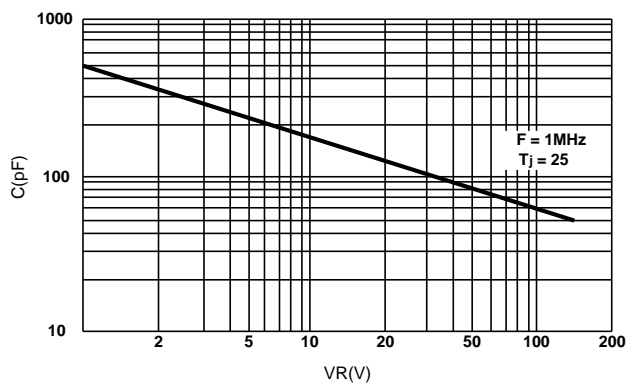


Figure 6. Junction capacitance versus reverse voltage applied (typical values, per diode)

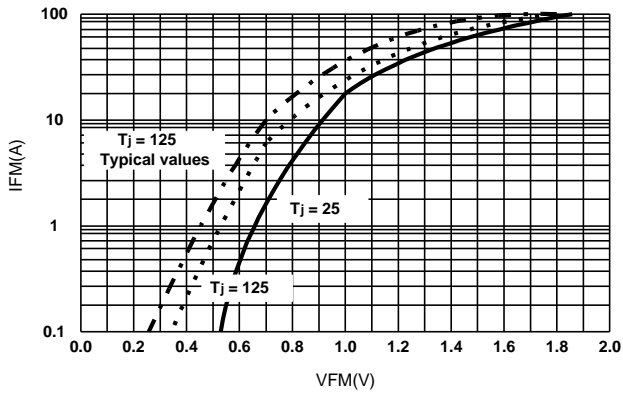


Figure 7. Forward voltage drop versus forward current (maximum values, per diode)

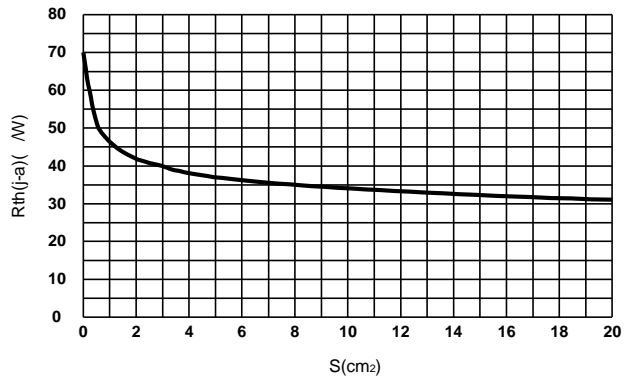


Figure 8. Thermal resistance junction to ambient versus copper surface under tab (Epoxy printed circuit board, copper thickness :  $35\mu\text{m}$ ) (STPS20150CG only)