

# **High Efficiency H-type Schottky**

150V, 1-30A Planar Schottky Barrier Rectifier at Maximum Junction Temperature of 175°C



By using planar with Pt barrier wafer , PANJIT's H-type Schottky has the advantage of performing low leakage current during high junction temperature operation. The reverse loss reduce due to the low leakage current during high temperature; the  $V_{\scriptscriptstyle F}$  decrease because of the high junction temperature which helps improve the forward loss. Therefore, PANJIT's H-type Schottky is suitable to use at high working environments to achieve the best performance.

#### ➤ H-type Features

- Ultra low reverse current at high temperature
- Low forward voltage drop at high temperature
- High efficiency when high junction temp. operation
- · Low power loss, high efficiency
- · High current capability
- Maximum junction temperature of 175°C
- Planar wafer technology

## **▶** Application







Lighting Power

TV Power

**Battery Charger** 

Industrial Power



Adaptor

### Advantage

Typical Forward Characteristics

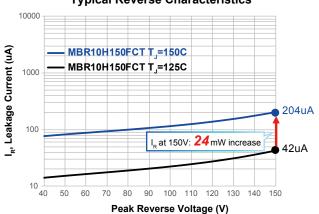
10
615mV
650mV

V<sub>F</sub> at 5A: 35 mV reduce
Power loss improve 175 mW

0.1
0.3
0.4
0.5
0.6
0.7
0.8

V<sub>F</sub> , Forward Voltage (V)

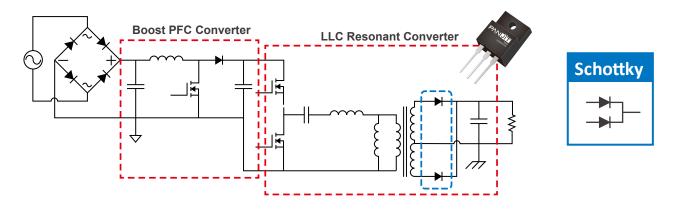
#### **Typical Reverse Characteristics**



#### ➤ H-type Family

Direction		Voltage 150V					
I <sub>F</sub> (A)		1	3	5/10	20	20	30
V <sub>F</sub> Spec (V)		0.85V @ 1A	0.85V @ 3A	0.85V @ 5A	0.85V @ 10A	0.9V @ 20A	0.85V @ 15A
I <sub>R</sub> Spec (uA)		0.5	0.5	0.5	0.55	0.8	0.8
Package	DO-41	MBR1H150	-	-	-	-	-
	DO-201AD	-	MBR3H150SS	MBR5H150SS	-	-	-
	SMA	SX1H15	SX3H15	-	-	-	-
	SMB	-	-	SR5H15	-	-	-
	TO-252	-	-	BD10H150CS	-	-	-
	TO-252AA	-	-	-	-	-	-
	TO-263	-	-	MBR10H150DC	MBR20H150DC	MBR20H150YD	MBR30H150DC
	TO-220AB	-	-	MBR10H150CT	MBR20H150CT	-	MBR30H150CT
	ITO-220AB	-	-	MBR10H150FCT	MBR20H150FCT MBR20H150FAT	-	MBR30H150FCT

### **▶** 37V/3.5A LED TV Power: MBR10H150FCT performance benchmark





H-type Schottky can achieve high performance when operating at high junction temperature

H-type Schottky Rectifier has capability of high junction temperature, which can get excellent performance when it is worked at high junction temperature. The high junction temperature can be obtained by reducing the size of the heat sink or removing the heat sink, which in turn enhances product's performance and saving space and BOM cost of circuit board.

