

## HIGH VOLTAGE POWER SCHOTTKY RECTIFIER

### MAIN PRODUCT CHARACTERISTICS

$I_{F(AV)}$	2x3 A
$V_{RRM}$	60 V
$V_F$ (max)	0.59 V

### PRELIMINARY DATASHEET

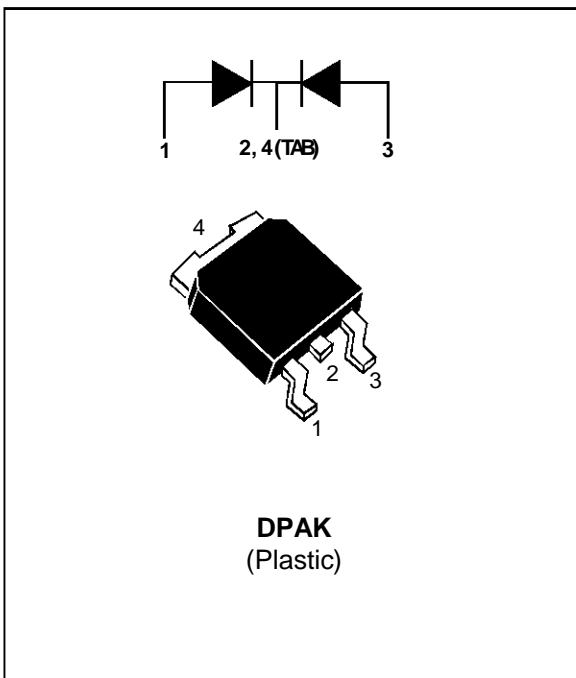
### FEATURES AND BENEFITS

- NEGLIGIBLE SWITCHING LOSSES
- LOW FORWARD DROP VOLTAGE
- LOW CAPACITANCE
- HIGH REVERSE AVALANCHE SURGE CAPABILITY
- TAPE AND REEL OPTION : -TR

### DESCRIPTION

High voltage dual Schottky rectifier suited to Switch Mode Power Supplies and other Power Converters.

Packaged in DPAK, this device is intended for use in medium voltage operation, and particularly, in high frequency circuitries where low switching losses are required.



### ABSOLUTE MAXIMUM RATINGS

Symbol	Parameter		Value	Unit
$V_{RRM}$	Repetitive Peak Reverse Voltage		60	V
$I_{F(RMS)}$	RMS Forward Current		6	A
$I_{F(AV)}$	Average Forward Current	$T_{case} = 120^{\circ}C$ $\delta = 0.5$	3	A
$I_{FSM}$	Surge Non Repetitive Forward Current	$t_p = 10$ ms Sinusoidal	50	A
$I_{RRM}$	Repetitive Peak Reverse Current	$t_p = 2$ $\mu$ s $F = 1$ KHz	1	A
$T_{stg}$	Storage Temperature Range		- 65 to + 150	$^{\circ}C$
$T_j$	Max. Junction Temperature		125	$^{\circ}C$
dV/dt	Critical Rate of Rise of Reverse Voltage		1000	V/ $\mu$ s

# STPS660CB(-TR)

## THERMAL RESISTANCES

Symbol	Parameter	Value	Unit
R <sub>TH (j-c)</sub>	Junction to Case Thermal Resistance	Per diode	3.5
		Total	2

## STATIC ELECTRICAL CHARACTERISTICS

Symbol	Tests Conditions	Tests Conditions	Min.	Typ.	Max.	Unit
I <sub>R</sub> *	Reverse leakage Current	T <sub>j</sub> = 25°C	V <sub>R</sub> = 60 V		30	μA
		T <sub>j</sub> = 125°C		2.5	10	mA
V <sub>F</sub> **	Forward Voltage drop	T <sub>j</sub> = 25°C	I <sub>F</sub> = 3 A		0.65	V
		T <sub>j</sub> = 125°C	I <sub>F</sub> = 3 A	0.55	0.59	

Pulse test : \* t<sub>p</sub> = 5 ms, duty cycle < 2 %  
 \*\* t<sub>p</sub> = 380 μs, duty cycle < 2%

To evaluate the maximum conduction losses use the following equation :

$$P = 0.49 \times I_{F(AV)} + 0.035 I_{F(RMS)}^2$$

Typical junction capacitance, V<sub>R</sub> = 0 V    F = 1MHz    T<sub>j</sub> = 25°C    C = 815pF

## PACKAGE MECHANICAL DATA

### DPAK

REF.	DIMENSIONS					
	Millimeters			Inches		
	Min.	Typ.	Max	Min.	Typ.	Max.
A	2.20		2.40	0.086		0.094
A1	0.90		1.10	0.035		0.043
B	0.64		0.90	0.025		0.035
B2	5.20		5.40	0.204		0.212
C	0.45		0.60	0.017		0.023
C1	0.48		0.60	0.018		0.023
D	6.00		6.20	0.236		0.244
E	6.40		6.60	0.251		0.259
G	4.40		4.60	0.173		0.181
H	9.35		10.10	0.368		0.397
L1	0.60		1.00	0.023		0.039
L2		0.80			0.031	

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