

POWER SCHOTTKY RECTIFIER

MAIN PRODUCT CHARACTERISTICS

$I_{F(AV)}$	2 x 3 A
V_{RRM}	60 V
$V_F (max)$	0.59 V

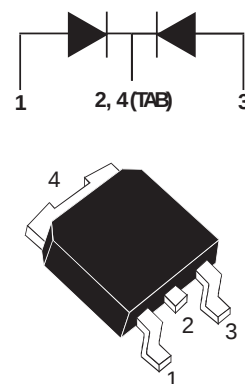
FEATURES AND BENEFITS

- 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.



DPAK

ABSOLUTE RATINGS (limiting values)

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	$t_p = 10\text{ ms}$ Sinusoidal	50	A
I_{RRM}	Repetitive peak reverse current	$t_p = 2\text{ }\mu s$ $F = 1\text{ kHz}$	1	A
T_{stg}	Storage temperature range		- 65 to + 150	$^{\circ}C$
T_j	Maximum junction temperature		125	
dV/dt	Critical rate of rise of reverse voltage		10000	V/ μs

STPS660CB(-TR)

THERMAL RESISTANCES

Symbol	Parameter		Value	Unit
R _{th(j-c)}	Junction to case	Per diode	3.5	°C/W
		Total	2	

STATIC ELECTRICAL CHARACTERISTICS

Symbol	Tests Conditions	Tests Conditions		Min.	Typ.	Max.	Unit
I _R *	Reverse leakage current	T _j = 25°C	V _R = 60 V			30	μA
		T _j = 125°C			2.5	10	mA
V _F **	Forward voltage drop	T _j = 25°C	I _F = 3 A			0.65	V
		T _j = 125°C	I _F = 3 A		0.55	0.59	

Pulse test : * tp = 5 ms, δ < 2 %
 ** tp = 380 μs, δ < 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_R = 0 V F = 1MHz T_j = 25°C C = 815pF