

# SP1045L

## Schottky Rectifier

### Features

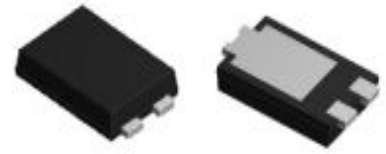
- Excellent high temperature stability
- Low leakage current
- Low power loss/ high efficiency
- High forward surge capability
- Ideal for automated placement
- Compliant to RoHS Directive 2011/65/EU and in accordance to WEEE 2002 /96/EC
- Halogen-free according to IEC 61249-2-21 definition

### Typical Application

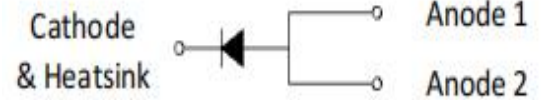
Trench Schottky barrier rectifier is designed for high frequency miniature switched mode power supplies such as adapters , lighting and on-board DC/DC converters.

### Mechanical Data

- **Case:** TO-277B  
Molding compound meets UL 94 V-0 flammability rating  
Moisture sensitivity level : level 1 , per J-STD-020
- **Terminals:** Matte tin plated leads , solderable per JESD22-B102  
Meet JESD 201 class 2 whisker test
- **Polarity:** Indicated by cathode band
- **Weight:** 0.095g (approximately)



TO-277B



### ■ Maximum Ratings (Ta=25°C Unless otherwise specified)

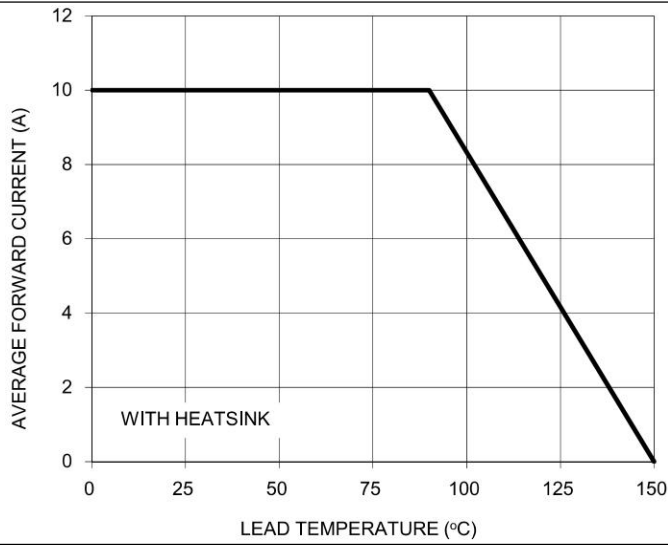
PARAMETER			Symbol	Unit	SP1045L
Peak Repetitive Reverse Voltage			$V_{RRM}$	V	45
Average Rectified Forward Current			$I_{F(AV)}$	A	10
Peak forward surge current , 8.3 ms single half sine-wave superimposed on rated load per diode			$I_{FSM}$	A	250
Maximum Instantaneous Forward Voltage per diode (Note 1)	$I_F=10A$	$T_J=25^{\circ}C$	$V_F$	V	0.45
Maximum Instantaneous Reverse Current per diode at rated reverse voltage		$T_J=25^{\circ}C$	$I_R$	$\mu A$	100
		$T_J=125^{\circ}C$		$mA$	15
Typical thermal resistance			$R_{\theta JL}$	$^{\circ}C/W$	11
Operating temperature range			$T_J$	$^{\circ}C$	-55 to +150
Storage temperature range			$T_{STG}$	$^{\circ}C$	-55 to +150

Note 1 :Pulse Test with Pulse Width = 300us , 1% Duty Cycle

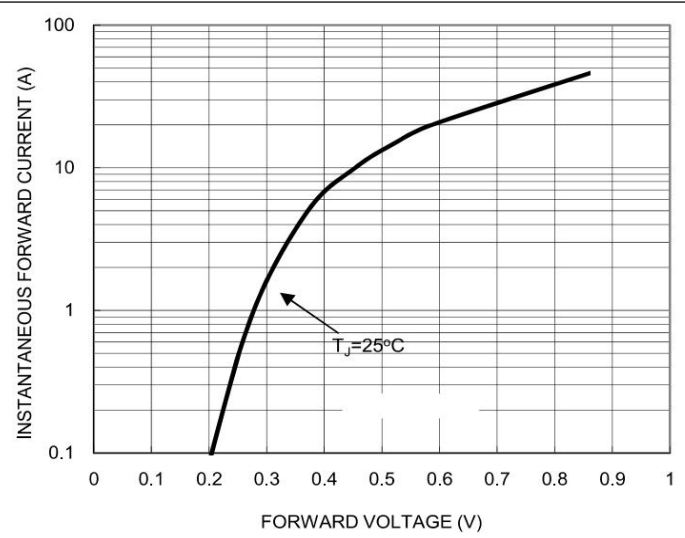


■ Characteristics (Typical)

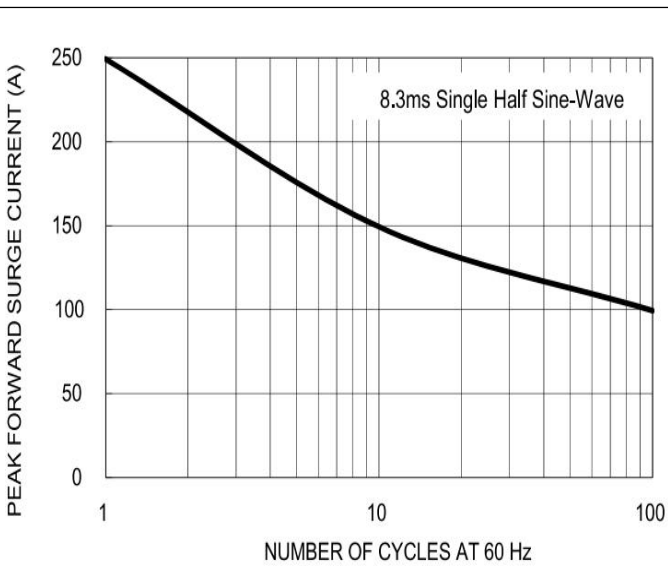
**FIG1: Forward Current Derating Curve**



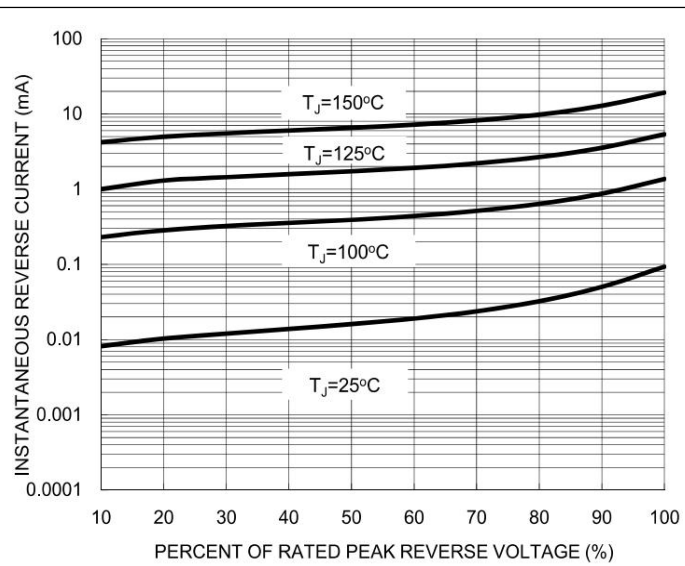
**FIG2: Typical Forward Characteristics**



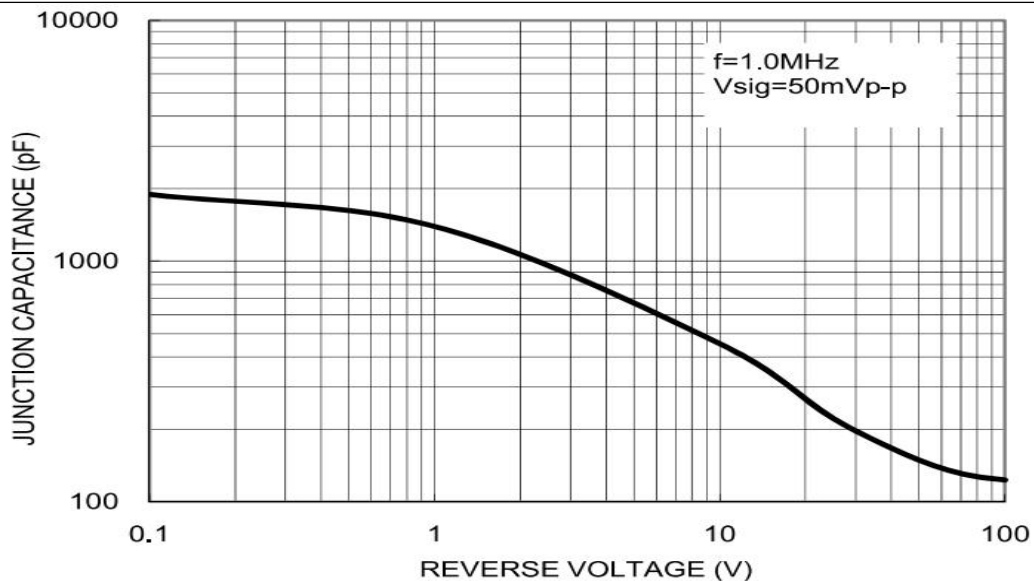
**FIG3: Maximum Non-Repetitive Forward Surge Current**



**FIG4: Typical Reverse Characteristics**



**FIG5: TYPICAL JUNCTION CAPACITANCE**



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## Ordering Information (Example)

PREFERED	PACKAGE CODE	MINIMUM PACKAGE(pcs)	INNER BOX QUANTITY(pcs)	OUTER CARTON QUANTITY(pcs)	DELIVERY MODE
SP1045L	TO-277B	5000	10000	80000	13"reel

## Outline Dimensions

