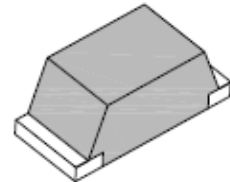


## 2.0A Surface Mount Low $V_F$ Schottky Rectifier

### Features

- Batch process design, excellent power dissipation offers better reverse leakage current and thermal resistance
- Low profile surface mounted application in order to optimize board space
- Tiny plastic SMD package
- Low power loss, high efficiency
- High current capability, low forward voltage drop
- High surge capability
- Guarding for overvoltage protection
- Ultra high-speed switching
- Silicon epitaxial planar chip, metal silicon junction
- RoHS Compliance



MFP



### Mechanical Data

<b>Case:</b>	MFP/MINI-SMA, Molded plastic body
<b>Epoxy:</b>	Plastic package has UL flammability classification 94V-0
<b>Terminals:</b>	Plated terminals, solderable per MIL-STD-750, Method 2026
<b>Polarity:</b>	Indicated by cathode band
<b>Mounting Position:</b>	Any
<b>Weight:</b>	Approximated 0.027gram

### Maximum Ratings and Electrical Characteristics ( $T_A=25^{\circ}\text{C}$ unless otherwise noted)

Symbol	Description	MFPS22L	MFPS23L	MFPS24L	Unit	Conditions
	Marking Code	L22	L23	L24		
<b><math>V_{RRM}</math></b>	Max. Repetitive Peak Reverse Voltage	20	30	40	V	
<b><math>V_{RMS}</math></b>	Max. RMS Voltage	14	21	28	V	
<b><math>I_{F(AV)}</math></b>	Average Forward Rectified Current	2.0			A	See Fig.1
<b><math>I_{FSM}</math></b>	Peak Forward Surge Current	50			A	8.3ms single half sine-wave superimposed on rated load (JEDEC Method)
<b><math>V_F</math></b>	Max. Forward Voltage	0.38	0.40	0.40	V	$I_F=2.0\text{A}$

# 2.0A Surface Mount Low $V_F$ Schottky Rectifier

## MFPS2L - MFPS4L

Symbol	Description	MFPS22L	MFPS23L	MFPS24L	Unit	Conditions
<b>I<sub>R</sub></b>	Reverse Current @ $V_R = V_{RRM}$	1.0			mA	$T_A=25^\circ\text{C}$
		10			mA	$T_A=125^\circ\text{C}$
<b>R<sub>thJA</sub></b>	Thermal Resistance	70			$^\circ\text{C} / \text{W}$	Junction to ambient
<b>C<sub>J</sub></b>	Diode Junction Capacitance	160			pF	$V_R = 4\text{V}$ , $f=1\text{MHz}$
<b>T<sub>J</sub></b>	Operating Temperature Range	-55 to +125			$^\circ\text{C}$	
<b>T<sub>STG</sub></b>	Storage Temperature Range	-65 to +175			$^\circ\text{C}$	

### Rating and characteristic curves

Fig.1- Typical Forward Current Derating Curve

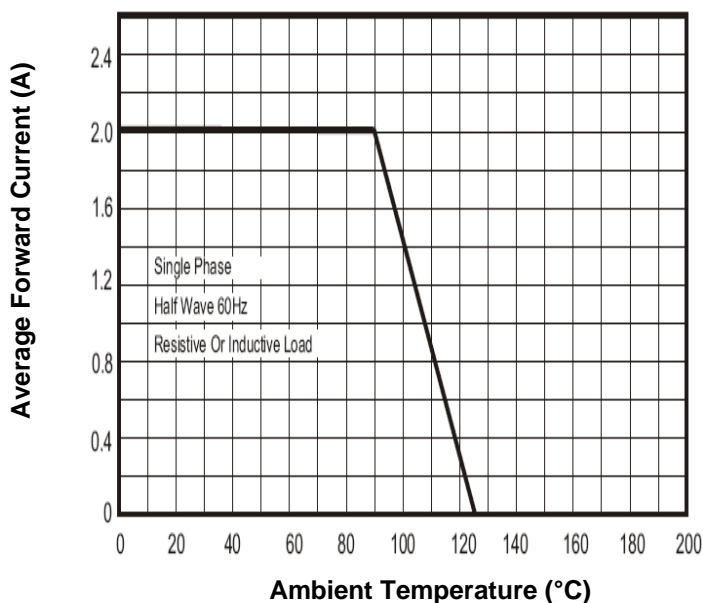
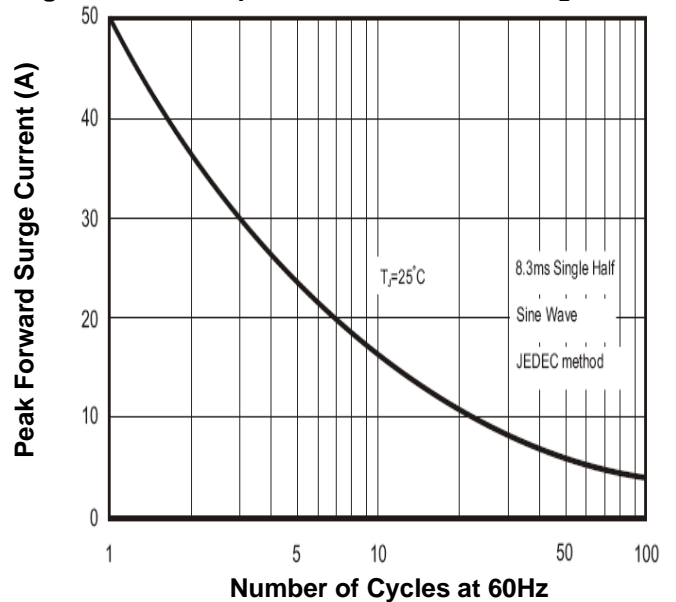


Fig.2-Max Non-Repetitive Peak Forward Surge Current



# 2.0A Surface Mount Low $V_F$ Schottky Rectifier

## MFPS2L - MFPS4L

Fig.3- Typical Instantaneous Forward Characteristics

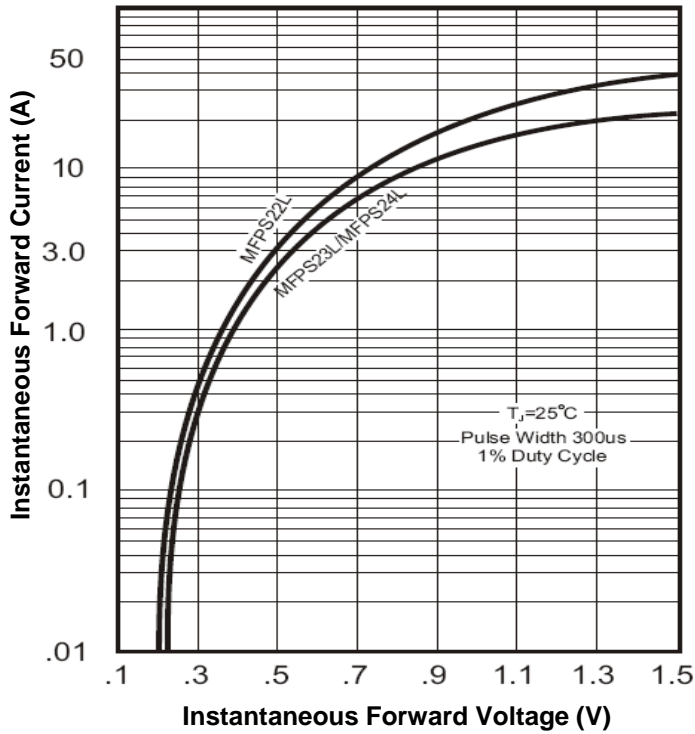


Fig.4-Typical Reverse Leakage Characteristics

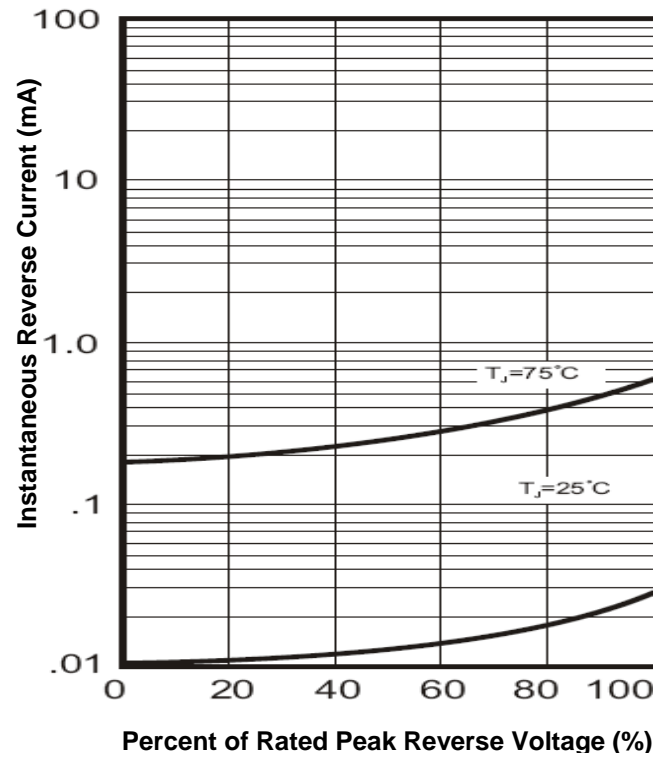
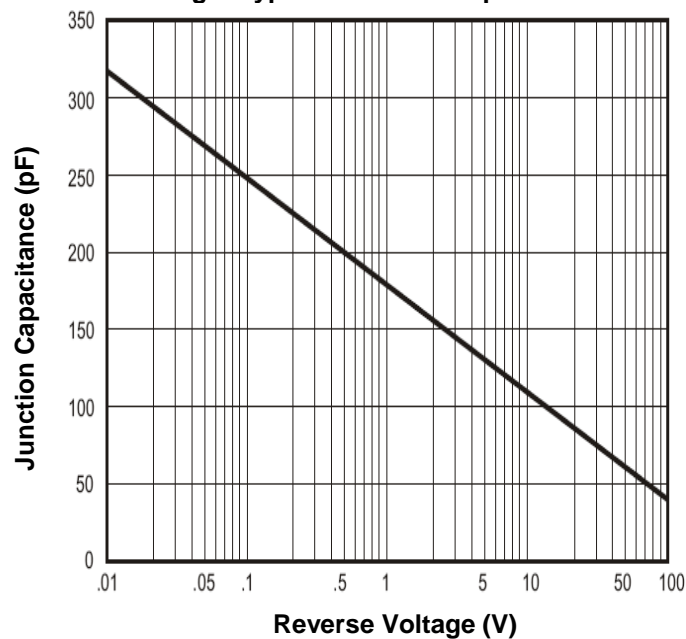


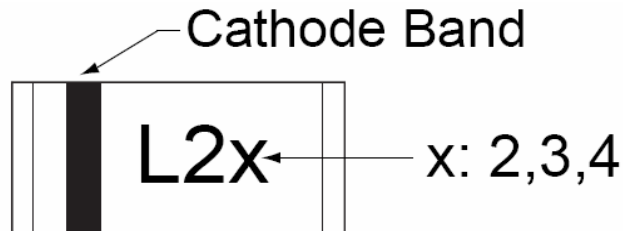
Fig.5-Typical Junction Capacitance



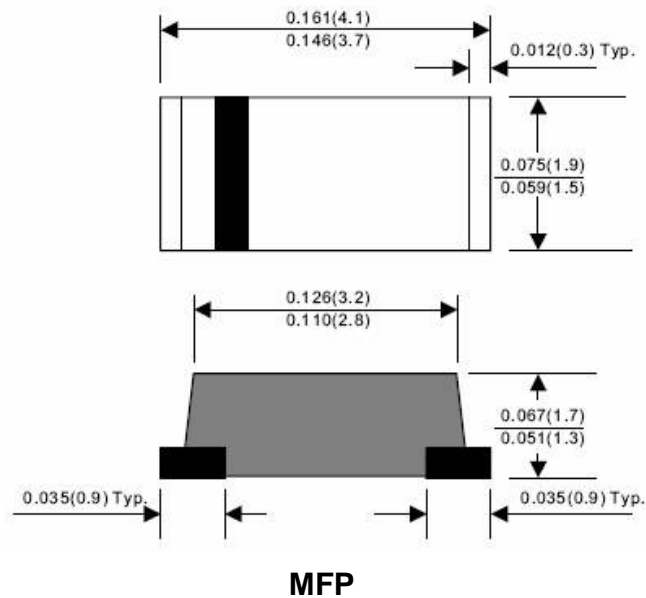
# 2.0A Surface Mount Low $V_F$ Schottky Rectifier

## MFPS2L - MFPS4L

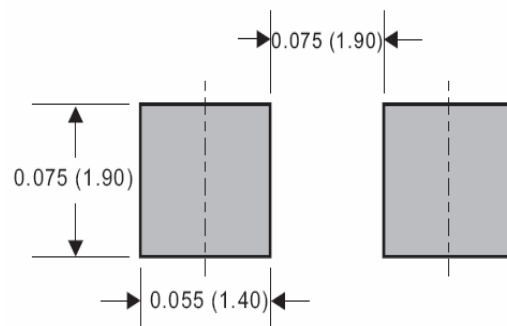
### Marking Information:



### Dimensions in inches (mm)



### Suggested Solder Pad Layout in inch (mm)



## 2.0A Surface Mount Low $V_F$ Schottky Rectifier

MFPS2L - MFPS4L

### How to contact us:

#### US HEADQUARTERS

28040 WEST HARRISON PARKWAY, VALENCIA, CA 91355-4162

Tel: (800) TAITRON (800) 824-8766 (661) 257-6060

Fax: (800) TAITFAX (800) 824-8329 (661) 257-6415

Email: [taitron@taitroncomponents.com](mailto:taitron@taitroncomponents.com)

Http://[www.taitroncomponents.com](http://www.taitroncomponents.com)

#### TAITRON COMPONENTS MEXICO, S.A .DE C.V.

BOULEVARD CENTRAL 5000 INTERIOR 5 PARQUE INDUSTRIAL ATITALAQUIA, HIDALGO C.P.

42970 MEXICO

Tel: +52-55-5560-1519

Fax: +52-55-5560-2190

#### TAITRON COMPONENTS INCORPORATED REPRESENTAÇÕES DO BRASIL LTDA

RUA DOMINGOS DE MORAIS, 2777, 2.ANDAR, SALA 24 SAÚDE - SÃO PAULO-SP 04035-001 BRAZIL

Tel: +55-11-5574-7949

Fax: +55-11-5572-0052

#### TAITRON COMPONENTS INCORPORATED, SHANGHAI REPRESENTATIVE OFFICE

METROBANK PLAZA, 1160 WEST YAN' AN ROAD, SUITE 1503, SHANGHAI, 200052, CHINA

Tel: +86-21-5424-9942

Fax: +86-21-5424-9931