

### 5.0A Surface Mount Schottky Rectifier

#### Features

- For surface mount applications
- Low profile package
- Built-in strain relief
- Metal to silicon rectifier, majority carrier conduction
- Low power loss, high efficiency
- High surge capability
- For use in low voltage, high frequency inverters, free wheeling, and polarity protection applications
- RoHS compliant



SMC  
(DO-214AB)



#### Mechanical Data

<b>Case:</b>	JEDEC DO-214AB, Molded plastic body
<b>Epoxy:</b>	Plastic package has UL flammability classification 94V-0
<b>Terminals:</b>	Solder plated, solderable per MIL-STD-750, Method 2026
<b>Polarity</b>	Color band denotes the cathode end
<b>Weight:</b>	0.008 ounce, 0.23 gram

#### Maximum Ratings & Electrical Characteristics *(T<sub>Ambient</sub>=25°C unless noted otherwise)*

Symbols	Description	SS58	SS510	Unit	Conditions
	Device Marking Code	S58	S510		
<b>VRRM</b>	Maximum Repetitive Peak Reverse Voltage	80	100	V	
<b>VRMS</b>	Maximum RMS Voltage	56	70	V	
<b>VDC</b>	Maximum DC Blocking Voltage	80	100	V	
<b>IF(AV)</b>	Maximum Average Forward Rectified Current	5.0		A	See Fig.1
<b>IFSM</b>	Peak Forward Surge Current	150		A	8.3ms single half sine-wave superimposed on rated load (JEDEC Method)
<b>VF</b>	Maximum Instantaneous Forward Voltage	0.67	0.79	V	IF =5.0A, Note 1
<b>IR</b>	Maximum DC Reverse Current at Rated DC Blocking Voltage	0.5		mA	TA=25 °C
		25			TA=100 °C

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## SS58 - SS510

Symbols	Description	SS58	SS510	Unit	Conditions
R $\theta$ JL	Maximum Thermal Resistance Junction to Lead	8		° C/W	Note 2
R $\theta$ JA	Maximum Thermal Resistance Junction to Ambient	25			
TJ	Operating Junction Temperature Range	-55 to +150		° C	
TSTG	Storage Temperature Range	-55 to +150		° C	

**Note:** 1. Pulse test width PW=300 $\mu$ S, 1% duty cycle.  
2. Mounted on P.C. board with 0.2x0.2" (5x5mm) copper pad areas.

### Typical Characteristics Curves

Fig.1- Forward Current Derating Curve

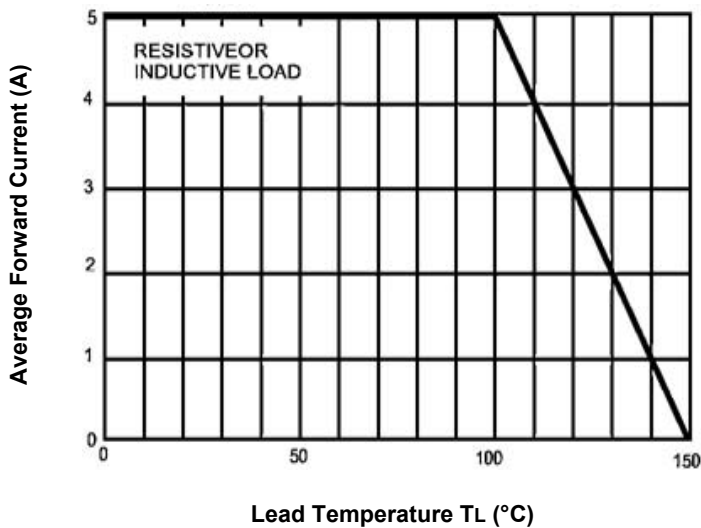
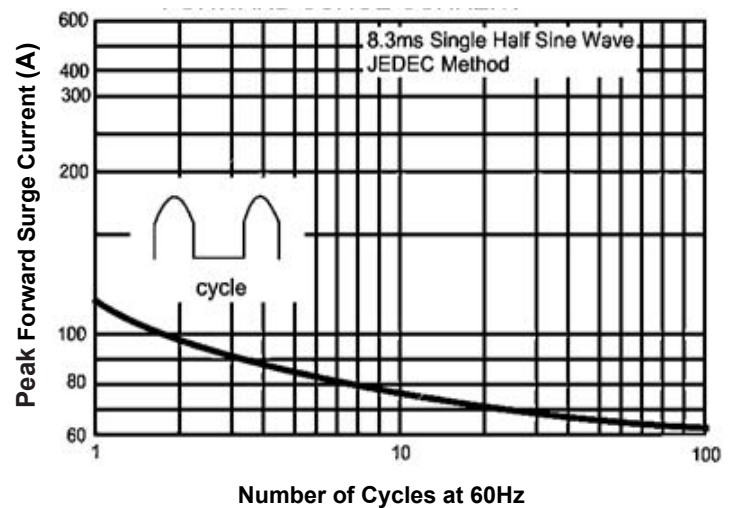


Fig.2- Max. Non-Repetitive Forward Surge Current



# 5.0A Surface Mount Schottky Rectifier

## SS58 - SS510

Fig.3- Typical Instantaneous Forward Characteristics

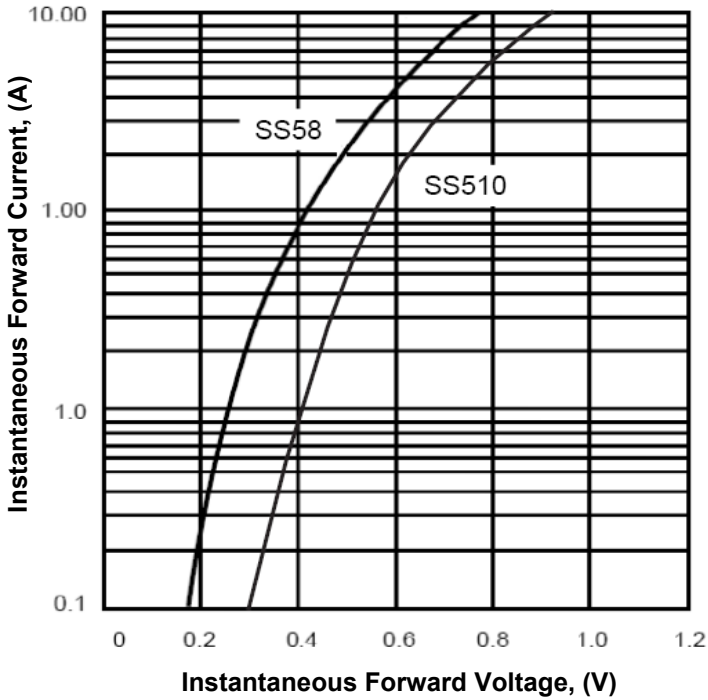


Fig.4- Typical Reverse Characteristics

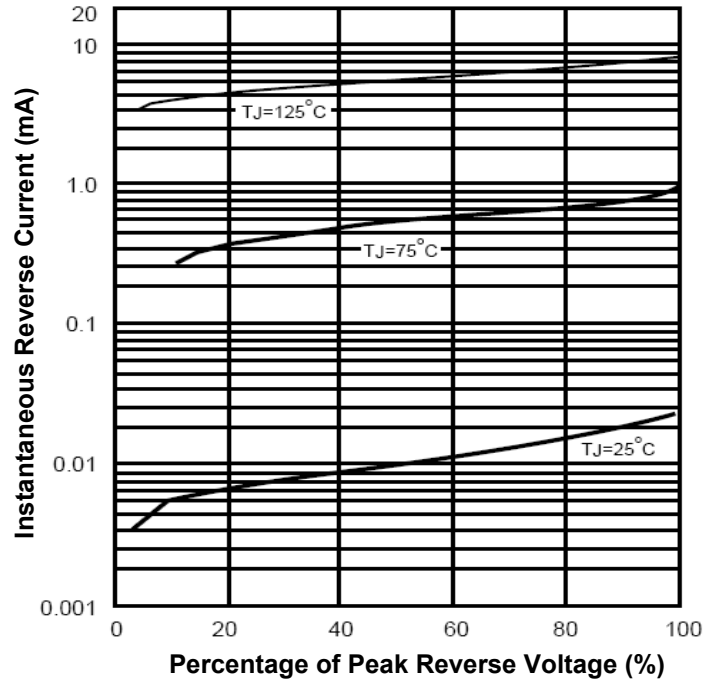
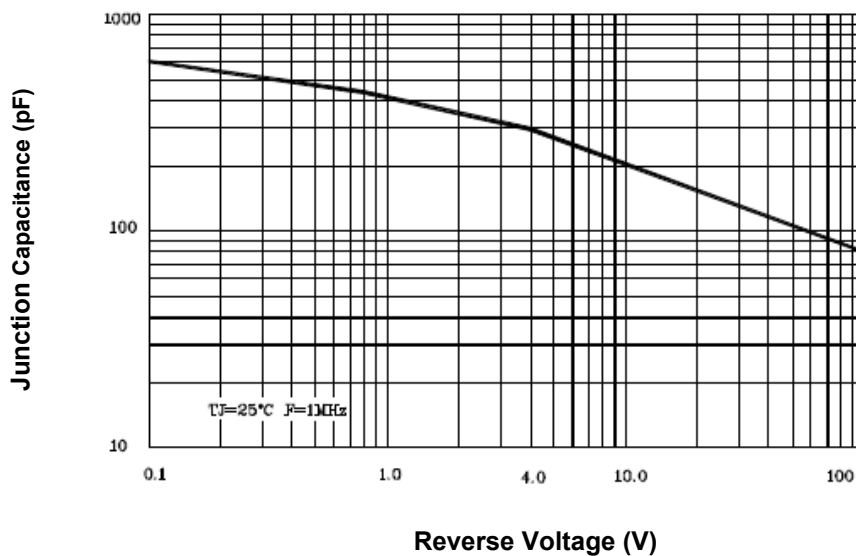


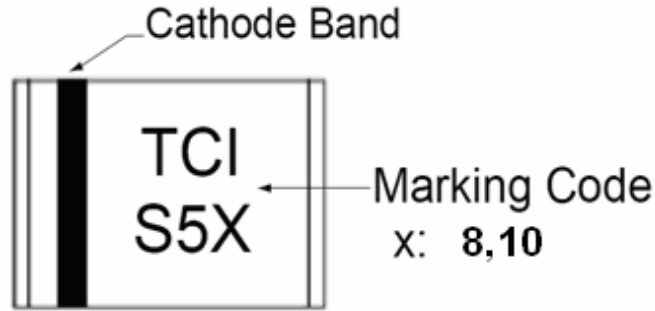
Fig.5- Typical Junction Capacitance



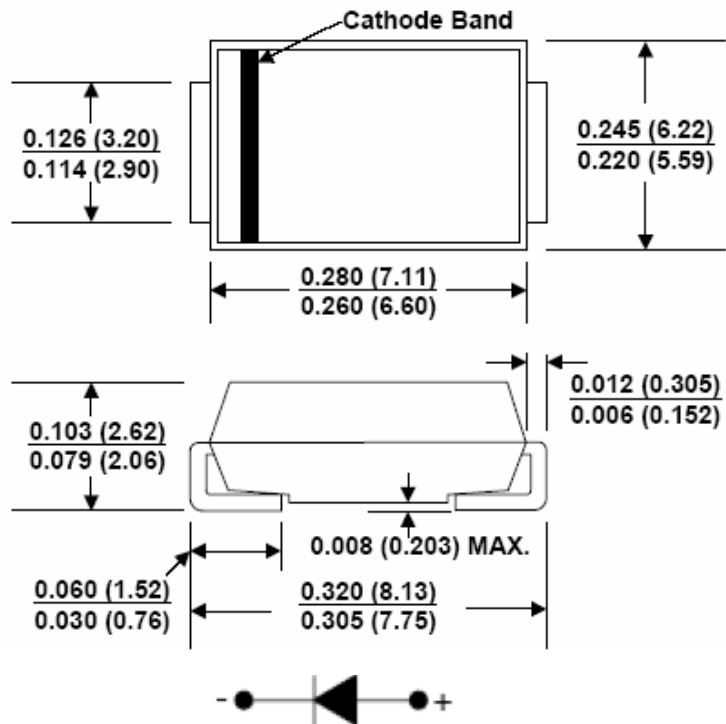
# 5.0A Surface Mount Schottky Rectifier

SS58 - SS510

## Marking Information:



## Dimensions in inch (mm)

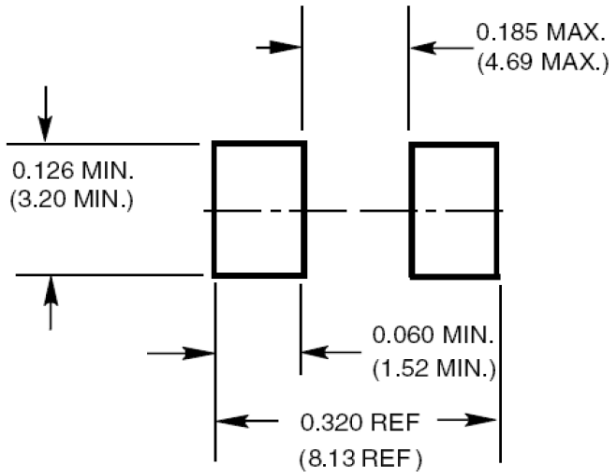


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# 5.0A Surface Mount Schottky Rectifier

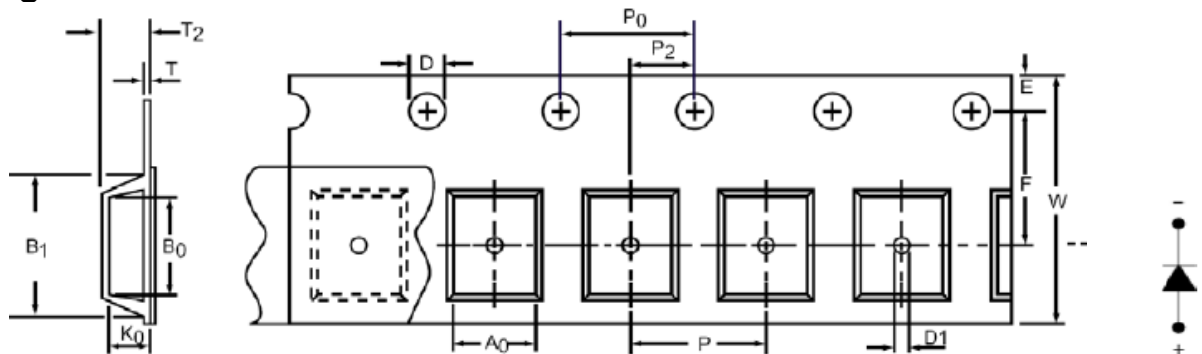
## SS58 - SS510

### Soldering Pad in inch (mm)



SMC

### Packing Information in mm



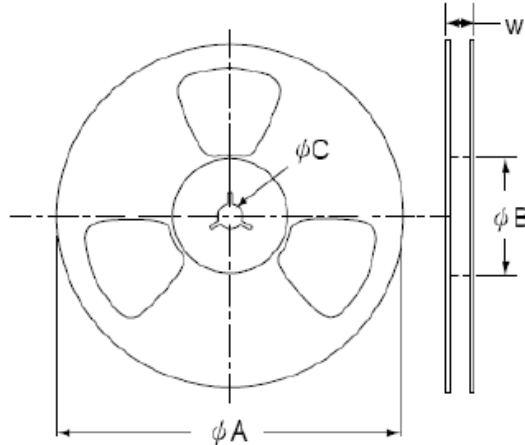
Product Type	A0	B0	K0	D	E	P0	T
		See Note			1.55±0.05	1.75±0.10	4.0±0.1
SMC	P2	B1	D1	F	P	W	T2
	2.0±0.1	12.1max.	1.5min.	7.5±0.1	8.0±0.1	16.0±0.3	6.5±0.1

**Note:** Symbol A0, B0, K0 are determined by the maximum dimensions of the component size. The clearance between the component and the cavity must be within 0.15 mm (0.066") min. to 0.90 mm (0.035") max. for 16 mm tape.

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## SS58 - SS510

### Reel Dimensions in mm



Product Type	$\phi A$	$\phi B$	$\phi C$	W
SMC	330.0 $\pm$ 2.0	50.0min.	13.0 $\pm$ 0.5	22.7max.

### 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