

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

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

Maximum Ratings & Electrical Characteristics ($T_{Ambient}=25^{\circ}C$ unless noted otherwise)

Symbols	Description	SS52	SS53	SS54	SS55	SS56	Unit	Conditions
	Device Marking Code	S52	S53	S54	S55	S56		
VRRM	Maximum Repetitive Peak Reverse Voltage	20	30	40	50	60	V	
VRMS	Maximum RMS Voltage	14	21	28	35	42	V	
VDC	Maximum DC Blocking Voltage	20	30	40	50	60	V	
IF(AV)	Maximum Average Forward Rectified Current	5.0					A	See Fig.1
IFSM	Peak Forward Surge Current	150					A	8.3ms single half sine-wave superimposed on rated load (JEDEC Method)
VF	Maximum Instantaneous Forward Voltage at 5.0A	0.55			0.70		V	Note 1
IR	Maximum DC Reverse Current at Rated DC Blocking Voltage (Note 1)	0.5					mA	$T_A=25^{\circ}C$
		20			10			$T_A=100^{\circ}C$

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SS52 - SS56

Symbols	Description	SS52	SS53	SS54	SS55	SS56	Unit	Conditions
R θ JL	Maximum Thermal Resistance Junction to Lead	10					° C/W	Note 2
R θ JA	Maximum Thermal Resistance Junction to Ambient	40						
T _J	Operating Junction Temperature Range	-55 to +125			-55 to +150		° C	
T _{STG}	Storage Temperature Range	-55 to +150					° C	

Note: 1. Pulse test width PW=300 μ S, 1% duty cycle.
2. Mounted on P.C. board with 0.55x0.55" (14x14mm) copper pad areas.

Typical Characteristics Curves

Fig.1- Forward Current Derating Curve

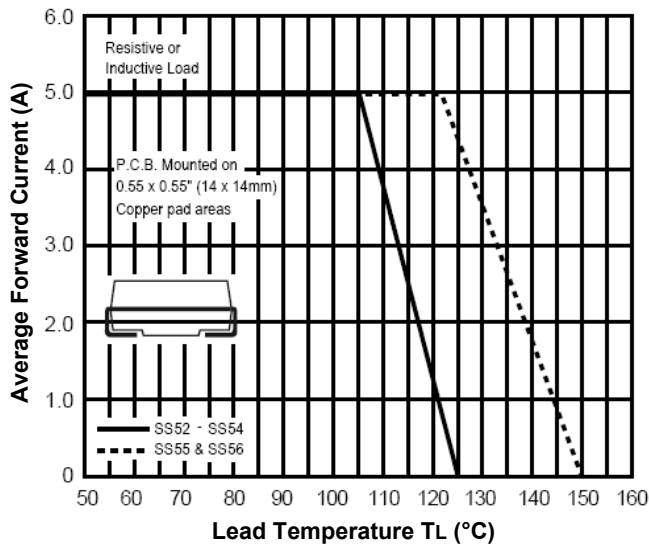
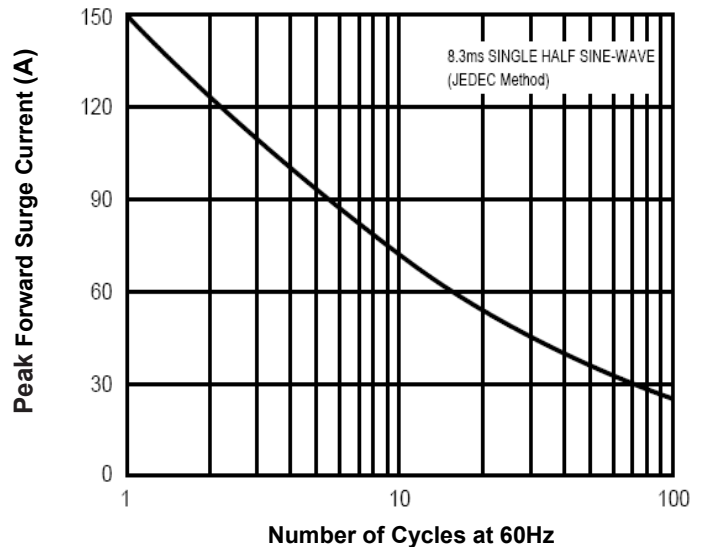


Fig.2- Max. Non-Repetitive Forward Surge Current



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Fig.3- Typical Instantaneous Forward Characteristics

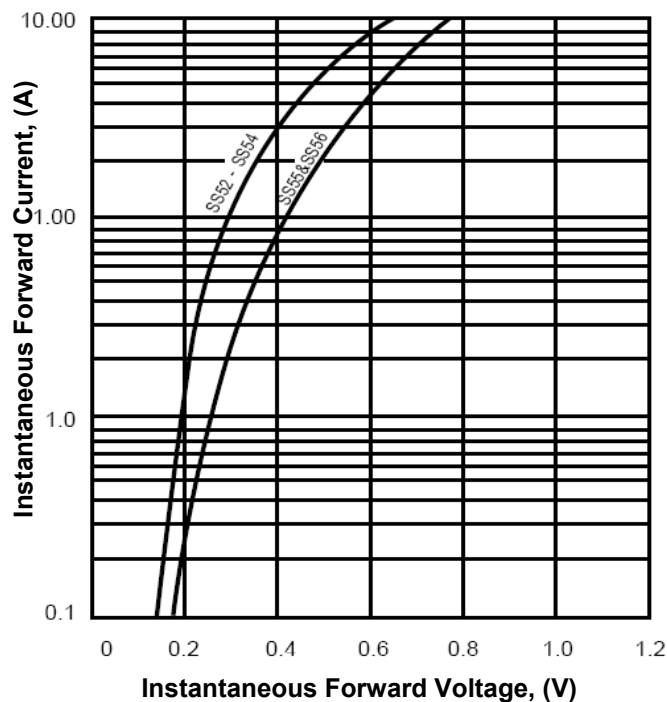


Fig.4- Typical Reverse Characteristics

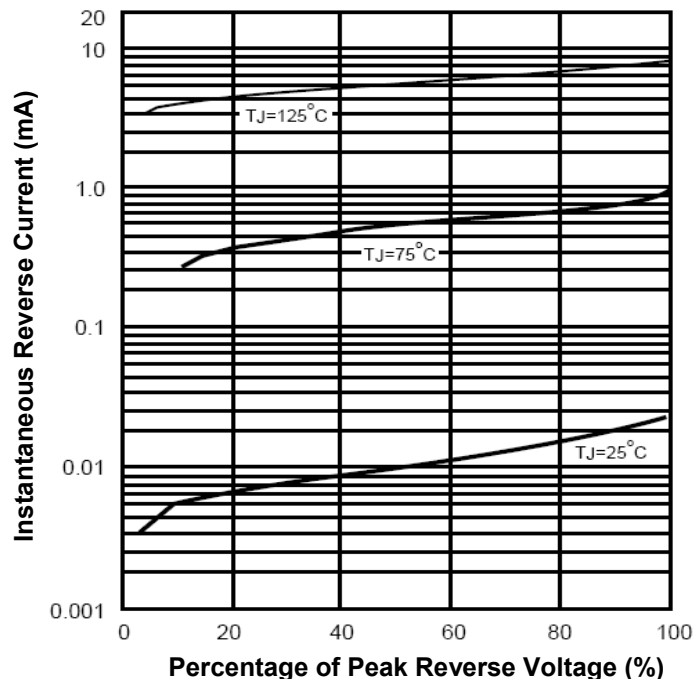
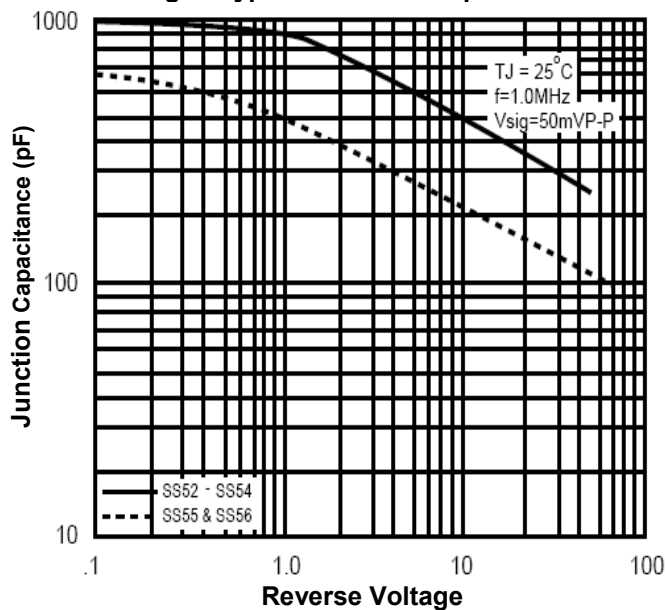


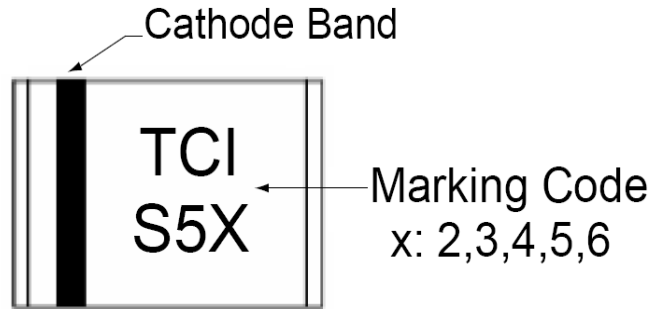
Fig.5- Typical Junction Capacitance



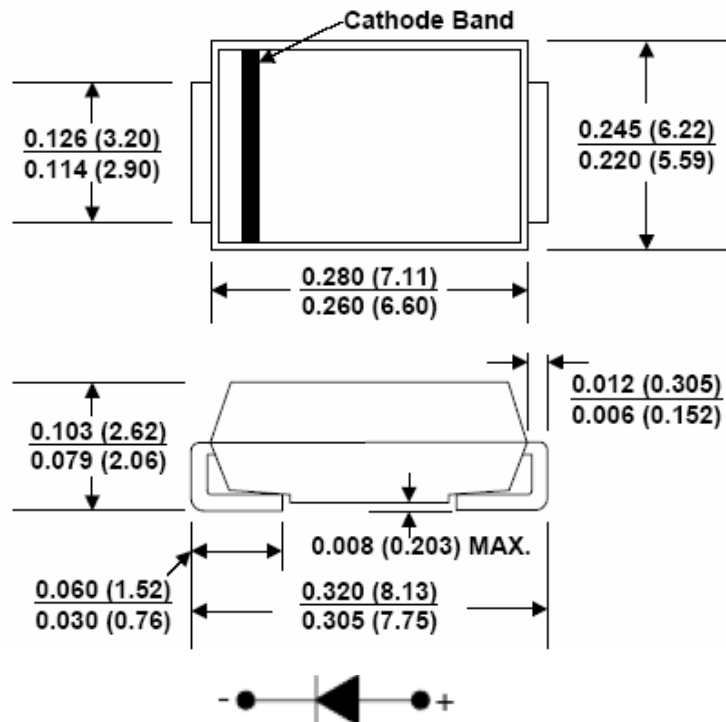
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Marking Information:



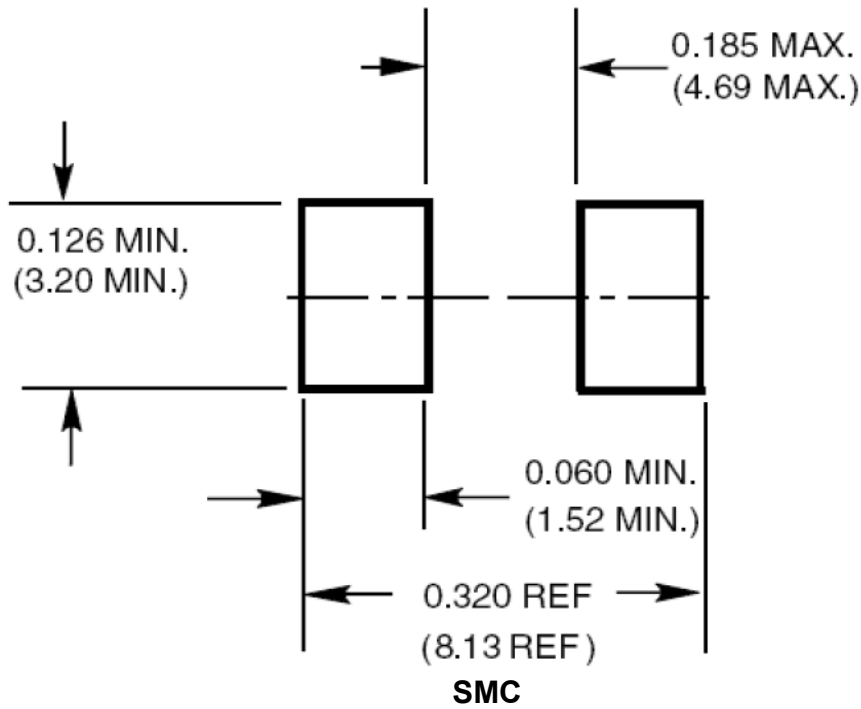
Dimensions in inch (mm)



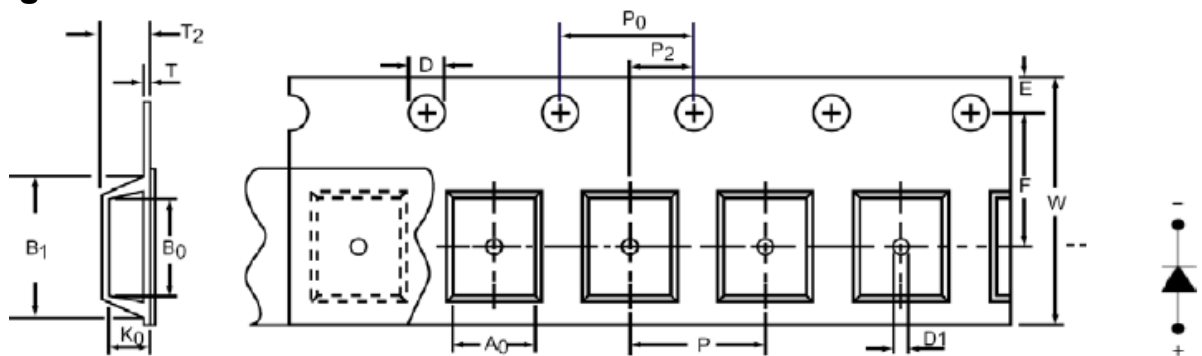
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Soldering Pad in inch (mm)



Packing Information in mm



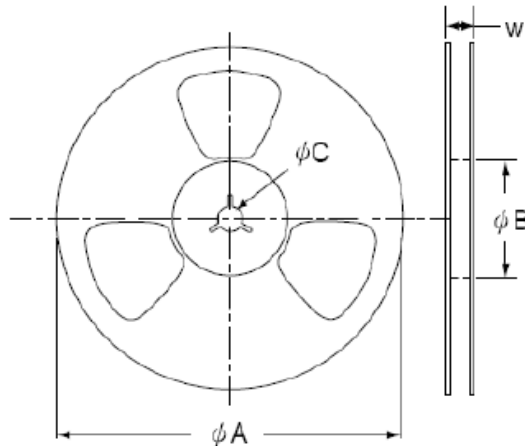
Product Type	A0	B0	K0	D	E	P0	T
		See Note			1.55±0.05	1.75±0.10	4.0±0.1
SMC	P2	B1	D1	F	P	W	T2
	2.0±0.1	12.1max.	1.5min.	7.5±0.1	8.0±0.1	16.0±0.3	6.5±0.1

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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Reel Dimensions in mm



Product Type	ΦA	ΦB	ΦC	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

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

TAITRON
components incorporated

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