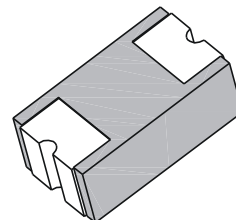


1.0A Low Profile Chip Schottky Rectifier

Features

- Low profile with SMD package
- Low power loss , High efficiency
- High current capability, Low voltage drop
- Plastic package has Underwriters Laboratory Flammability Classification 94V-0
- RoHS compliant and Halogen Free
- AEC - Q101 qualified



**C0805
(SOD-323)**



**HALOGEN
FREE**

Mechanical Data

Case:	0805 SMD package, Molded plastic body
Terminals:	Pure Tin plated, solderable per MIL-STD-750, Method 2026
Polarity	Laser cathode band marking
Weight:	0.005 gram

Maximum Ratings *(T_{Ambient}=25°C unless noted otherwise)*

Symbol	Description	TSCD12WS	TSCD14WS	TSCD16WS	Unit	Conditions
	Marking Code	A2	A4	A6		
VRRM	Repetitive Peak Reverse Voltage	20	40	60	V	
VDC	Maximum DC Blocking Voltage	14	28	42	V	
VRWM	Working Peak Reverse Voltage	20	40	60	V	
IF(AV)	Forward Rectified Current	1.0			A	SEE FIG.1
IFSM	Non-repetitive Peak Forward Surge Current	10			A	8.3ms single half sine-wave
TJ	Operating Junction temperature range	-55 to +125		-55 to +150	° C	
TSTG	Storage Temperature Range	-55 to +150			° C	

1.0A Low Profile Chip Schottky Rectifier

TSCD12WS-TSCD16WS

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

Symbol	Description		Min.	Typ.	Max.	Unit	Conditions
VF	Forward Voltage	TSCD12WS	-	0.32	-	V	IF=0.1A
			-	0.39	-		IF=0.5A
			-	0.42	0.45		IF=1A
		TSCD14WS	-	0.33	-		IF=0.1A
			-	0.40	-		IF=0.5A
			-	0.47	0.50		IF=1A
		TSCD16WS	-	0.38	-		IF=0.1A
			-	0.50	-		IF=0.5A
			-	0.62	0.65		IF=1A
IR	Reverse Current		-	0.028	0.20	mA	$V_R=Max.V_{RRM}, T_A=25^{\circ}C$
CJ	Typical Junction Capacitance		-	115	-	pF	$V_R=4V, f=1MHz$
R θ -JA	Thermal Resistance Junction to Ambient		-	120	-	$^{\circ}C/W$	
R θ -JC	Thermal Resistance Junction to Case		-	28	-	$^{\circ}C/W$	

NOTES:

1. Pulse test width PW=300usec, 1% duty cycle.
2. Mounted on P.C. board with 0.2 x 0.2"(5.0 x 5.0mm) copper pad areas.

Typical Characteristics Curves

Fig.1- Forward Current Derating Curve

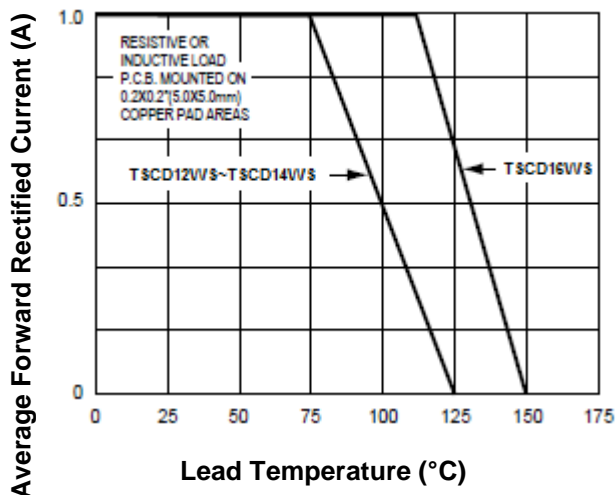
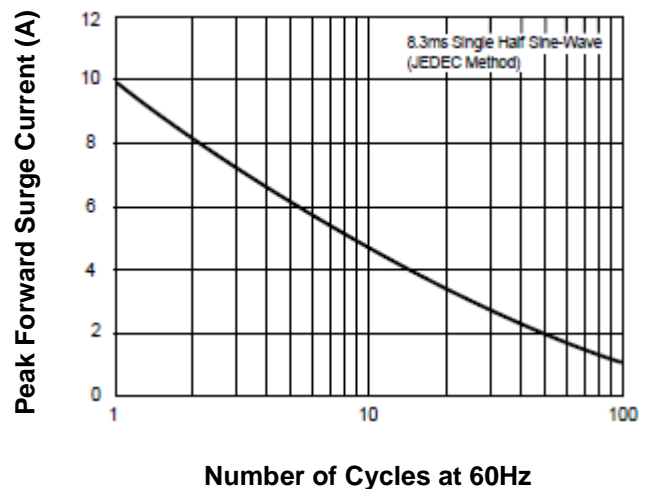


Fig.2-Max. Non-Repetitive Forward Surge Current



1.0A Low Profile Chip Schottky Rectifier

TSCD12WS-TSCD16WS

Fig.3- Typical Instantaneous Forward Characteristics

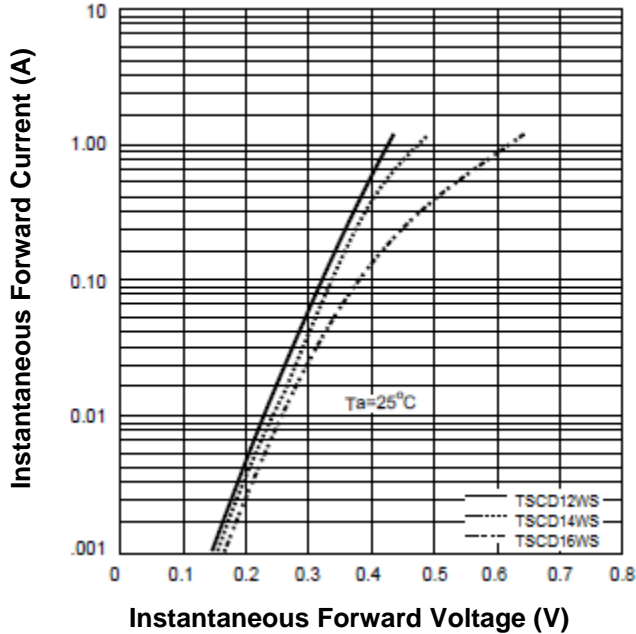


Fig.4- Typical Reverse Characteristics

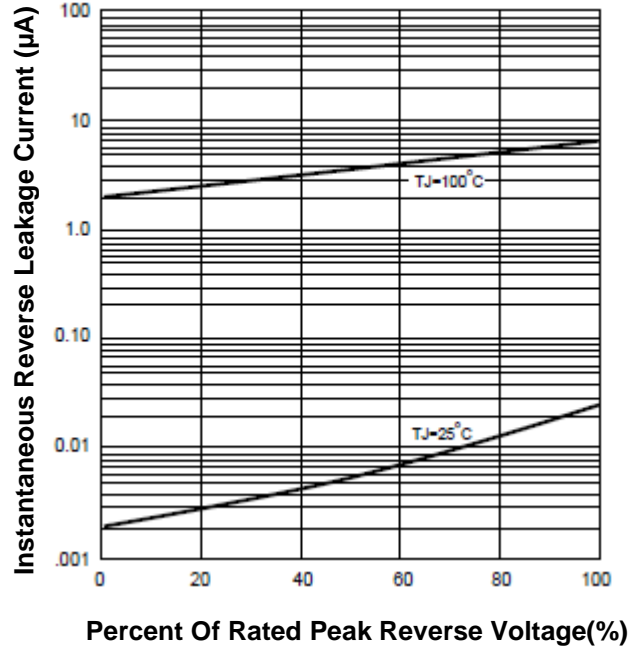
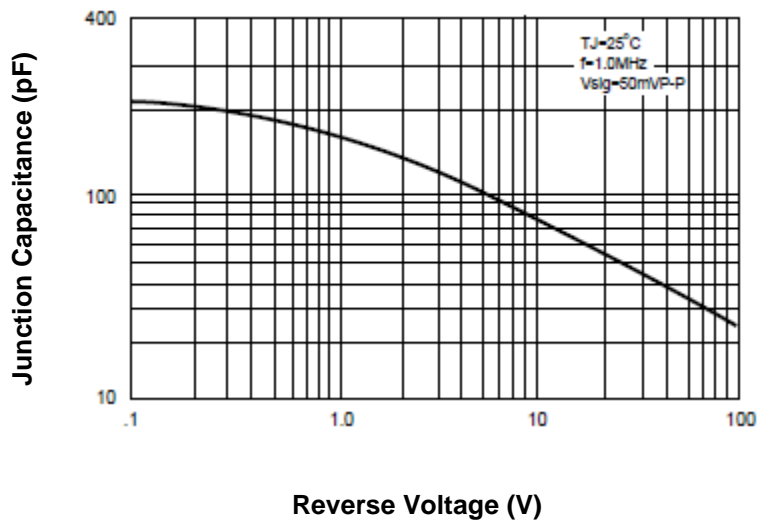


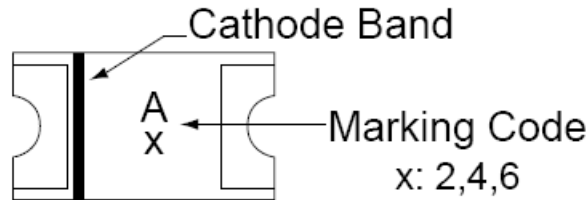
Fig.5-Typical junction capacitance



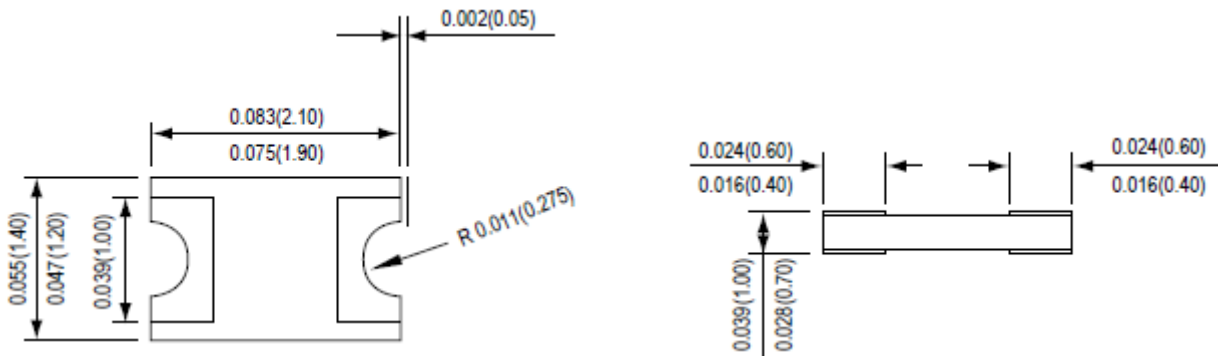
1.0A Low Profile Chip Schottky Rectifier

TSCD12WS-TSCD16WS

Marking Information:

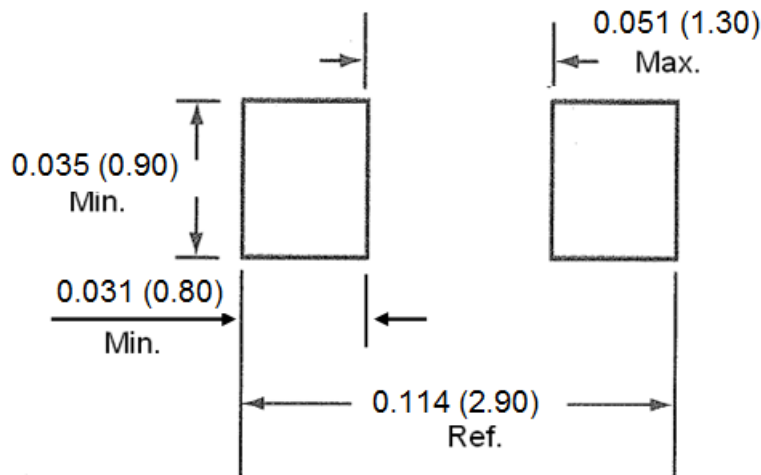


Dimensions in inch (mm)



C0805
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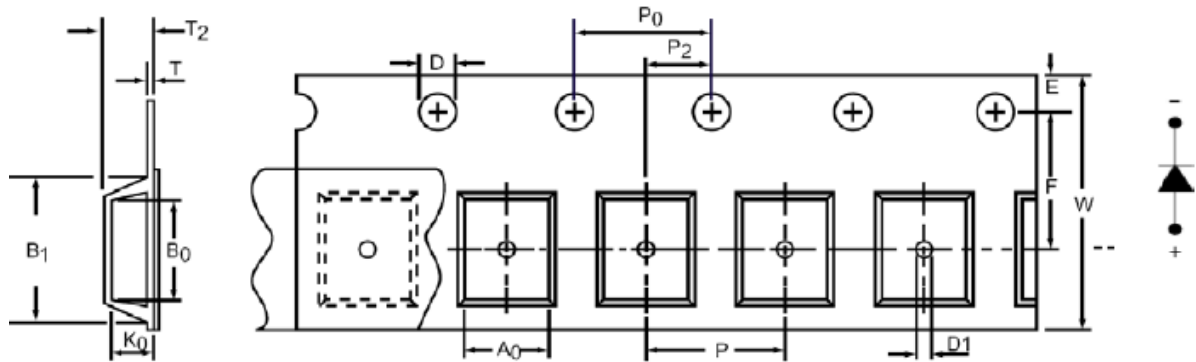
Mounting Pad Layout in inch (mm)



1.0A Low Profile Chip Schottky Rectifier

TSCD12WS-TSCD16WS

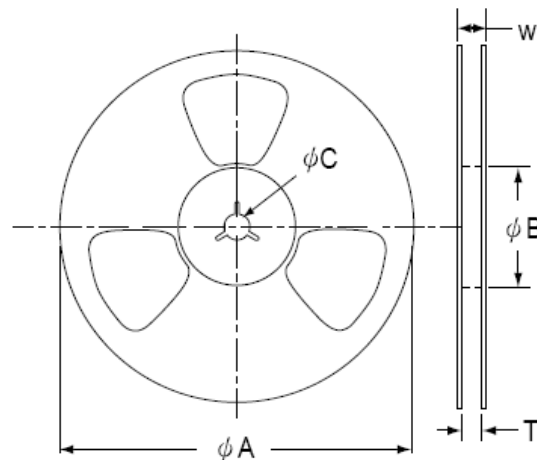
Packing Information in mm



Product Type	A0	B0	K0	D	E	P0	T
	See Note			1.5±0.1	1.75±0.10	4.0±0.1	0.4max.
C0805	P2	B1	D1	F	P	W	T2
	2.0±0.1	2.0max.	0.80min.	3.50±0.05	4.0±0.1	8.0±0.3	1.22±0.10

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 0.05 mm (0.002") min. to 0.50 mm (0.02") max. for 8 mm tape.

Reel Dimensions in mm



ΦA	ΦB	ΦC	W	T
178±2.0	60min.	13.5±0.5	12.0max.	9.0max.

1.0A Low Profile Chip Schottky Rectifier

TSCD12WS-TSCD16WS

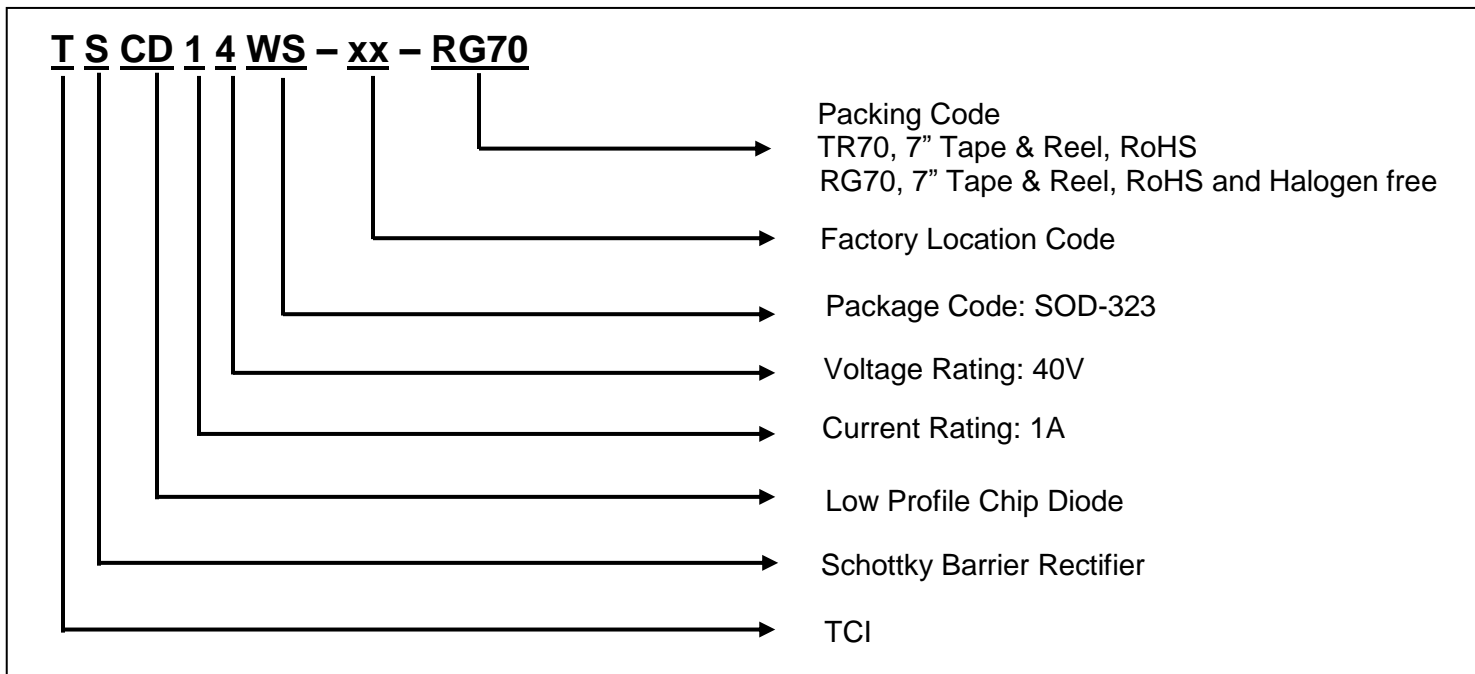
Packing Quantity Information:

Quantity	PCS per Reel	PCS per Box	PCS per Carton
-TR70/RG70 Tape &Reel	3,000	15,000	90,000

Carton Size Information:

-RG70 Tape & Reel
400X207X240 (in mm)

How to Order



1.0A Low Profile Chip Schottky Rectifier

TSCD12WS-TSCD16WS

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