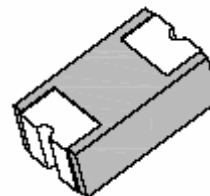


## 1.0A Sintered Glass Passivated Fast Recovery Rectifier

### Features

- Leadless chip form, no lead damage
- Lead-free solder joint, no wire bond & lead frame
- Low profile package
- For surface mounted applications
- Built-in strain relief
- Low power loss, High efficiency
- High current capability
- High surge capacity
- Plastic package has UL Flammability Classification 94V-0
- RoHS Compliance



C1206



### Mechanical Data

<b>Case:</b>	Packed with FRP substrate and epoxy underfilled
<b>Terminals:</b>	Pure Tin plated (Lead-Free), solderable per MIL-STD-750, Method 2026
<b>Polarity:</b>	Cathode band, Laser marking
<b>Mounting Position:</b>	Any
<b>Weight:</b>	0.012 gram

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

Symbol	Description	TCDR 1QW	TCDR 1VW	TCDR 1YW	TCDR 1ZW	TCDR 1MMW	Unit	Conditions
<b>V<sub>RRM</sub></b>	Max. Repetitive Peak Reverse Voltage	1200	1400	1600	1800	2000	V	
<b>V<sub>RMS</sub></b>	Max. RMS Voltage	840	980	1120	1260	1400	V	
<b>V<sub>DC</sub></b>	Max. DC Blocking Voltage	1200	1400	1600	1800	2000	V	
<b>I<sub>F(AV)</sub></b>	Average Forward Rectified Current	1.0					A	See Fig.1
<b>I<sub>FSM</sub></b>	Peak Forward Surge Current	30					A	8.3ms single half sine-wave superimposed on rated load (JEDEC Method)
<b>V<sub>F</sub></b>	Max. Instantaneous Forward Voltage at 1.0A	1.80					V	

# 1.0A Sintered Glass Passivated Fast Recovery Rectifier

## TCDR1QW - TCDR1MMW

Symbol	Description	TCDR 1QW	TCDR 1VW	TCDR 1YW	TCDR 1ZW	TCDR 1MMW	Unit	Conditions
IR	Max. DC Reverse Current at Rated DC Blocking Voltage	5					μA	TA=25°C
		30						TA=125°C
		50						TA=150°C
Trr	Max. Reverse Recovery Time	500					nS	IF=0.5A, IR=1.0A, Irr=0.25A
CJ	Typical Junction Capacitance	15					pF	VR=4V, f=1MHz
RthJA	Typical Thermal Resistance	95					° C/W	Note
RthJL		40						
TJ,TSTG	Operating Junction and Storage Temperature Range	-65 to +175					° C	

**Note:** Thermal resistance from junction to ambient and from junction to lead P.C.B. mounted on 0.2 x 0.2" (5.0 x 5.0mm) copper pad areas.

### Typical Characteristics Curves

Fig.1- Forward Current Derating Curve

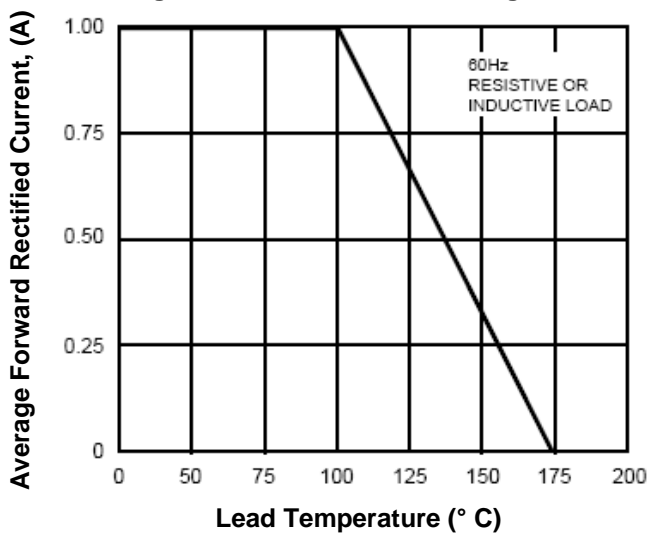
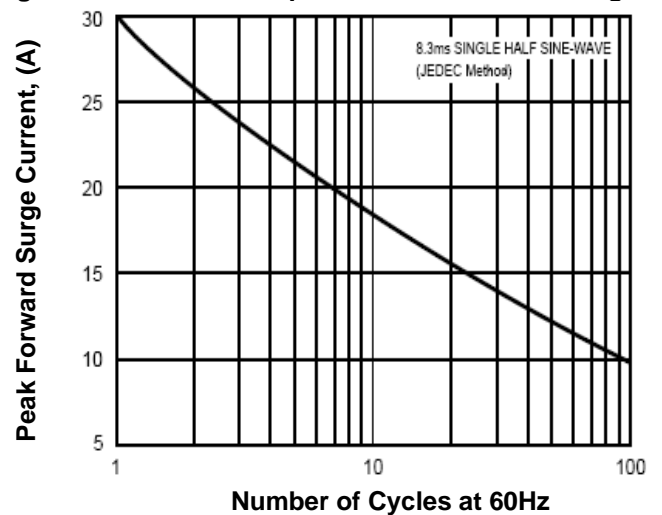


Fig.2- Maximum Non-Repetitive Peak Forward Surge Current



# 1.0A Sintered Glass Passivated Fast Recovery Rectifier

## TCDR1QW - TCDR1MMW

Fig.3- Typical Instantaneous Forward Characteristics

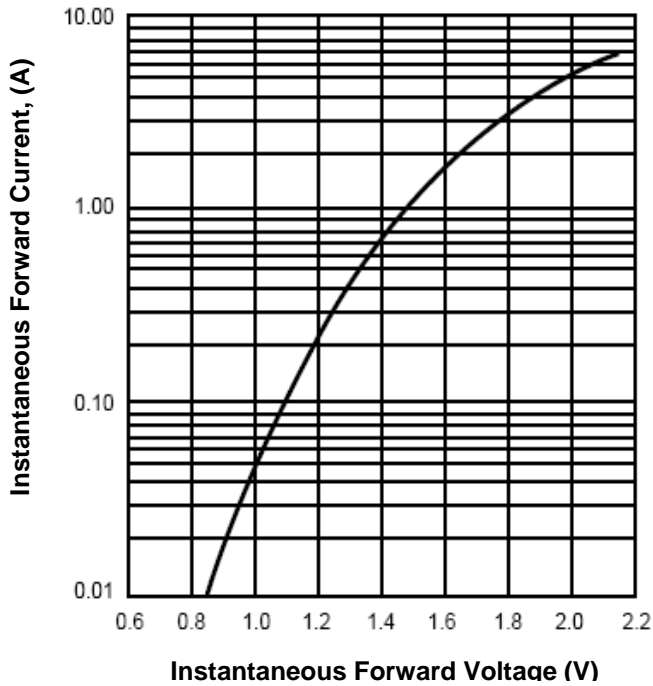


Fig.4-Typical Reverse Characteristics

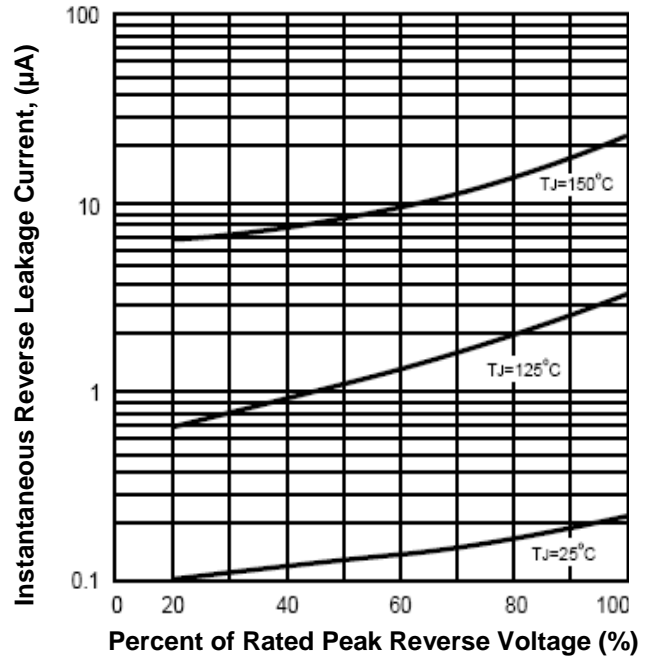
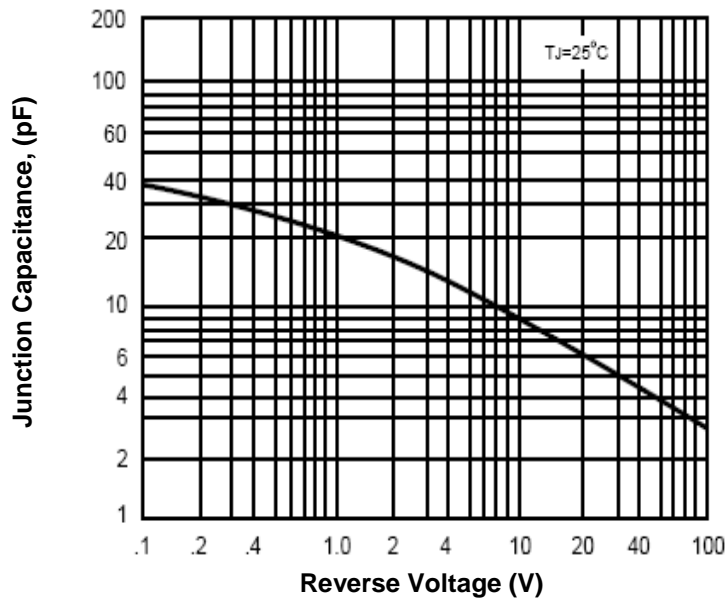


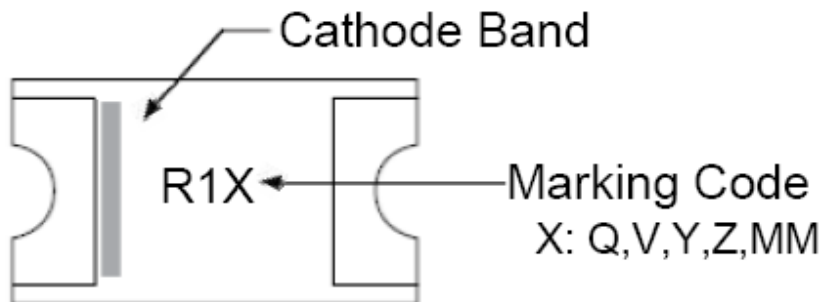
Fig.5-Typical Junction Capacitance



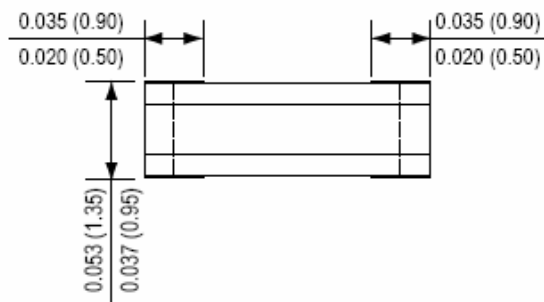
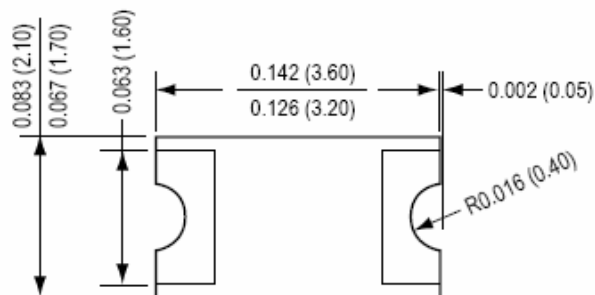
# 1.0A Sintered Glass Passivated Fast Recovery Rectifier

## TCDR1QW - TCDR1MMW

### Marking Information:



### Dimensions in inches (mm)

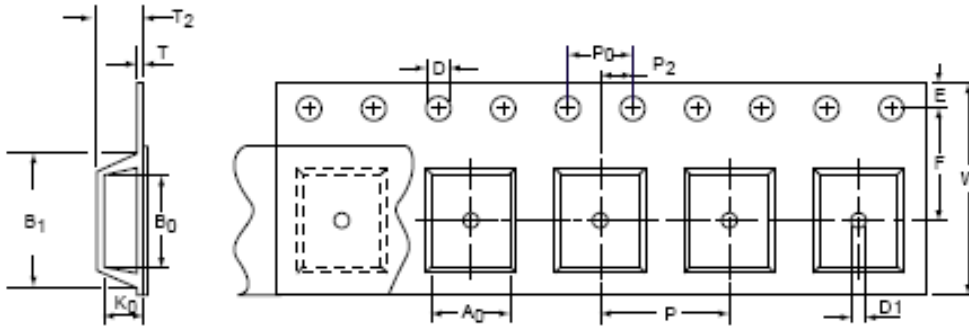


C1206

# 1.0A Sintered Glass Passivated Fast Recovery Rectifier

## TCDR1QW - TCDR1MMW

### Packing Information in mm



Product Type	D	P0	P	W	E	A0	B0
	1.50±0.1	4.00±0.1	4.00±0.1	12.00±0.3	1.75±0.1	2.20±0.1	3.65±0.1
1206	B1	T	T2	D1	F	K0	P2
	8.20max.	0.40max.	1.75±0.1	1.50min.	5.50±0.05	1.28±0.1	2.0±0.1

### Packing Quantity Information:

Quantity	PCS per Reel	PCS per Carton
-TR70 Tape & Reel	3000	90000

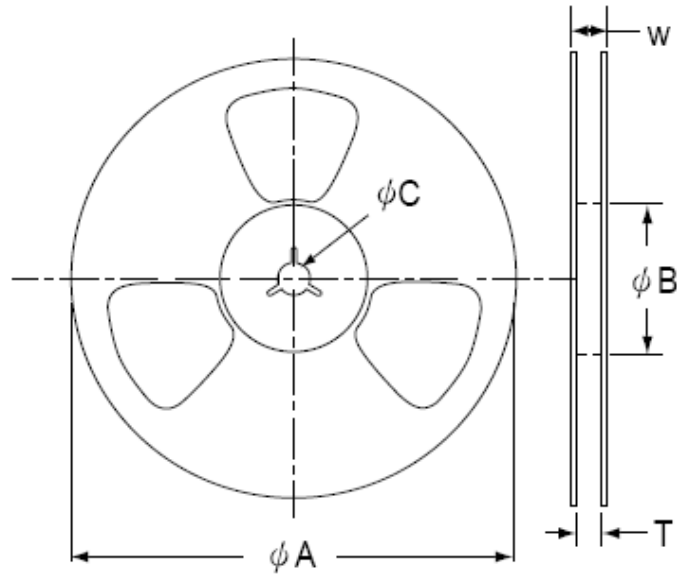
### Carton Size Information:

-TR70 Tape & Reel
400X207X240 (in mm)

# 1.0A Sintered Glass Passivated Fast Recovery Rectifier

## TCDR1QW - TCDR1MMW

### Reel Dimensions in mm



$\Phi A$	$\Phi B$	$\Phi C$	$W$	$T$
$178 \pm 2.0$	50min.	$13.0 \pm 0.5$	18.7max.	14.4max.

# 1.0A Sintered Glass Passivated Fast Recovery Rectifier

## TCDR1QW - TCDR1MMW

### 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