

## Single-Phase Bridge Rectifier

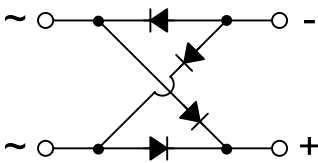
## ■ FEATURES

Forward Current	: $I_{F(AV)}=1.0A$
Repetitive Peak Reverse Voltage	: $V_{RM}=100V\sim 1000V$
Environmentally Friendly	: EU RoHS Compliant

## ■ APPLICATIONS

- LED Lighting
- Power supply module
- AC Adapter, Battery charger
- Home appliances

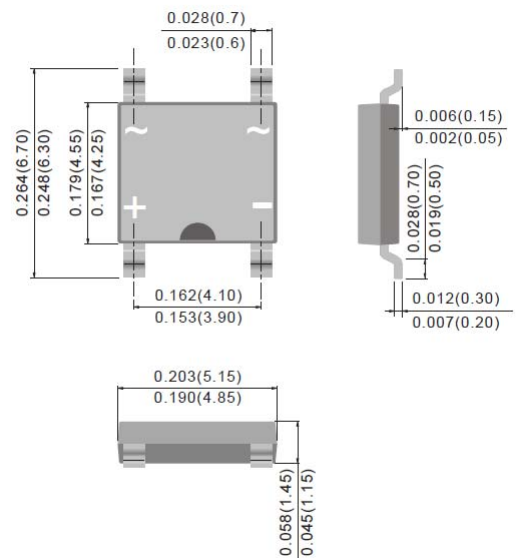
## ■ PIN CONFIGURATION



## ■ PACKAGING INFORMATION

● MDIP

Unit : inch (mm)



## ■ ABSOLUTE MAXIMUM RATINGS

Ta=25°C

PARAMETER	SYMBOL	XBR11						UNITS
		A1	A2	A4	A6	A8	A10	
Repetitive Peak Reverse Voltage	$V_{RM}$	100	200	400	600	800	1000	V
RMS Voltage	$V_{RMS}$	70	140	280	420	560	700	V
Reverse Voltage (DC)	$V_R$	100	200	400	600	800	1000	V
Forward Current (Average) at Ta=50°C <sup>(*)</sup>	$I_{F(AV)}$	1.0						A
Non Continuous Forward Surge Current (8.3 ms single half-sine wave)	$I_{FSM}$	30						A
Rating for fusing (t < 8.3 ms)	$I^2t$	3.7						A <sup>2</sup> ·s
Junction Temperature	$T_j$	150						°C
Storage Temperature	$T_{stg}$	-55 to +150						°C

(\*) 60Hz sine wave, Resistance load, PCB mounted

## ■ ELECTRICAL CHARACTERISTICS

Ta=25°C

PARAMETER	SYMBOL	TEST CONDITIONS	LIMITS			UNITS
			MIN.	TYP.	MAX.	
Forward Voltage	$V_F$	$I_F=1A$ , Pulse measurement, per diode	-	-	1.1	V
Reverse Current	$I_R$	$V_R=V_{RM}$ , Pulse measurement, per diode	-	-	10	$\mu A$
Junction Capacitance	$C_J$	$V_R=4V$ , $f=1MHz$ , per diode	-	10	-	pF

## ■ PRODUCT NAME

PRODUCT NAME	PACKAGE	ORDER UNIT	MARKING CODE
XBR11A1-G *	MDIP	8,000 / 2 Reels	TB1S
XBR11A2-G *	MDIP	8,000 / 2 Reels	TB2S
XBR11A4-G *	MDIP	8,000 / 2 Reels	TB4S
XBR11A6-G *	MDIP	8,000 / 2 Reels	TB6S
XBR11A8-G *	MDIP	8,000 / 2 Reels	TB8S
XBR11A10-G *	MDIP	8,000 / 2 Reels	TB10S

\* The "-G" suffix denotes Halogen and Antimony free as well as being fully EU RoHS compliant.

\* The high-melting solder paste (lead-containing) is used as attachment.

## ■ NOTES ON USE

1. Please use this IC within the absolute maximum ratings.

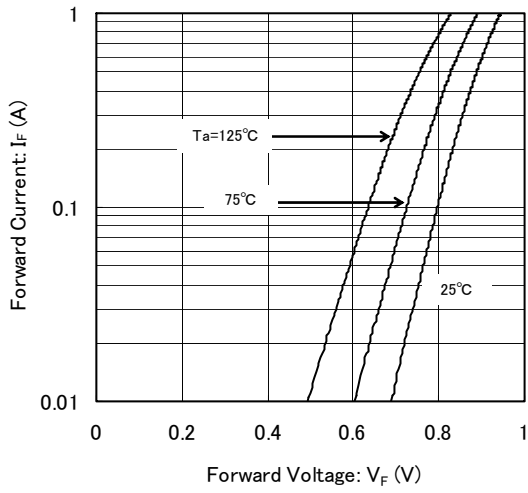
Even within the ratings, in case of high load use continuously such as high temperature, high voltage, high current and thermal stress may cause reliability degradation of the IC.

2. Torex places an importance on improving our products and their reliability.

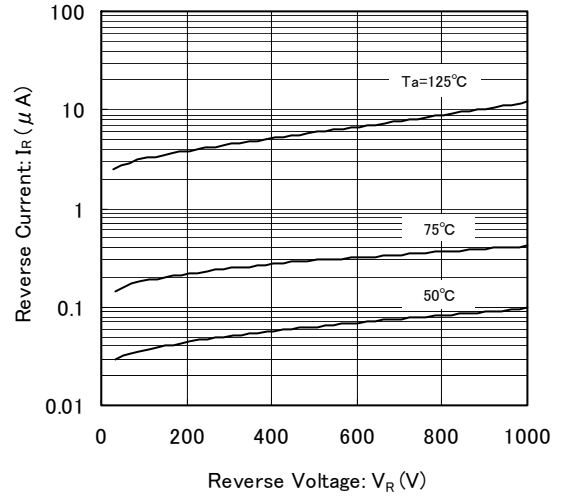
We request that users incorporate fail-safe designs and post-aging protection treatment when using Torex products in their systems.

## ■ TYPICAL PERFORMANCE CHARACTERISTICS

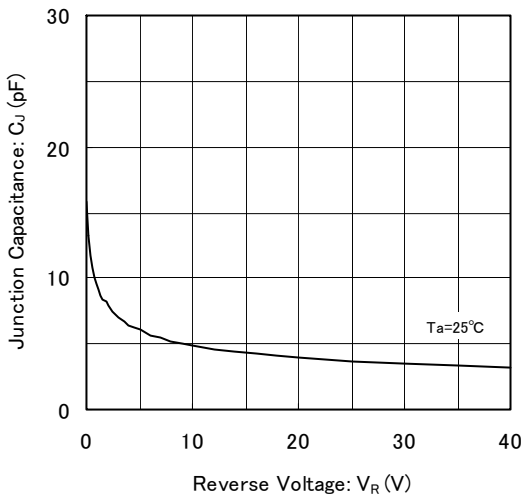
(1) Forward Current vs. Forward Voltage



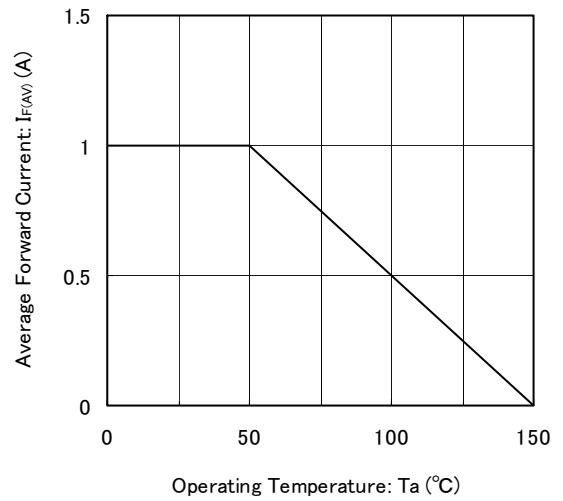
(2) Reverse Current vs. Reverse Voltage



(3) Junction Capacitance vs. Reverse Voltage



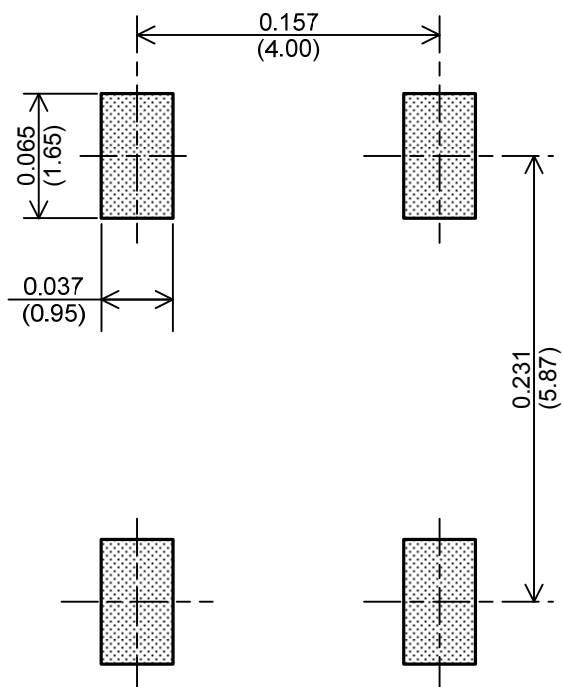
(4) Average Forward Current vs. Operating Temperature



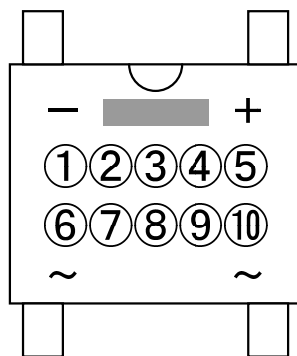
## REFERENCE PATTERN LAYOUT

●MDIP

Unit: inch (mm)



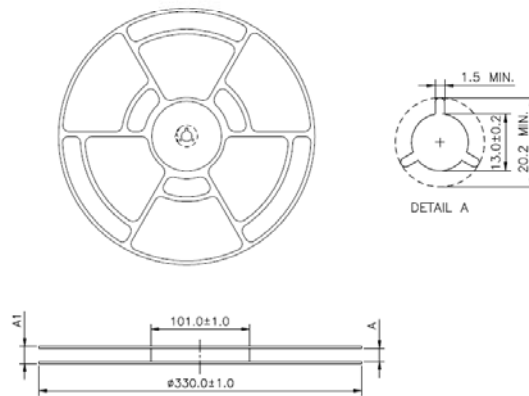
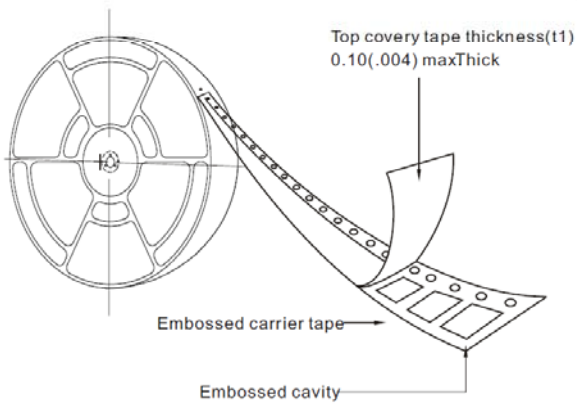
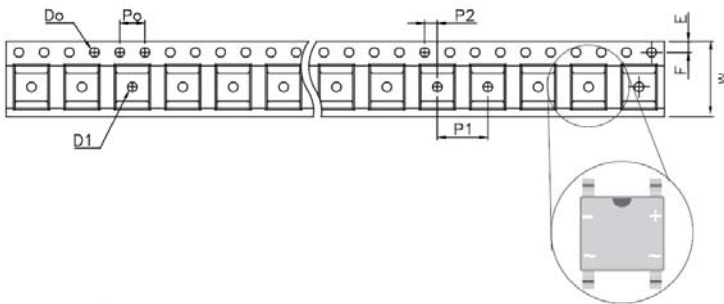
## MARKING



①②③④⑤ : Control Number  
⑥⑦⑧⑨⑩ : Marking Code

**■ TAPING SPECIFICATIONS**

● MDIP



SYMBOL	mm
$D_0$	$1.50 \pm 0.10$
$D_1$	$1.50 \pm 0.25$
$E$	$1.75 \pm 0.10$
$F$	$5.50 \pm 0.05$
$P_0$	$4.00 \pm 0.10$
$P_1$	$8.00 \pm 0.05$
$P_2$	$2.00 \pm 0.05$
$W$	12.00 + 3.0 - 1.0
$A$	12.40 + 2.0 - 0.0
$A_1$	max. 18.4

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