

Single-Phase Bridge Rectifier

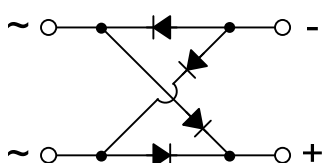
FEATURES

Forward Current	: $I_{F(AV)}=1.5A$
Repetitive Peak Reverse Voltage	: $V_{RM}=600V\sim 1000V$
Environmentally Friendly	: EU RoHS Compliant

APPLICATIONS

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

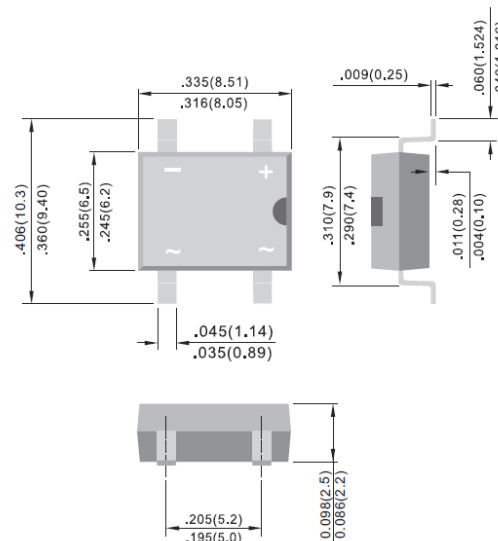
PIN CONFIGURATION



PACKAGING INFORMATION

● SDIP

Unit : inch (mm)



ABSOLUTE MAXIMUM RATINGS

Ta=25°C

PARAMETER	SYMBOL	XBR12			UNITS
		A6	A8	A10	
Repetitive Peak Reverse Voltage	V_{RM}	600	800	1000	V
RMS Voltage	V_{RMS}	420	560	700	V
Reverse Voltage (DC)	V_R	600	800	1000	V
Forward Current (Average) at Ta=40°C (*1)	$I_{F(AV)}$	1.5			A
Non Continuous Forward Surge Current (8.3ms single half-sine wave)	I_{FSM}	50			A
Rating for fusing (t<8.3ms)	I^2t	10			A ² ·s
Junction Temperature	T_j	150			°C
Storage Temperature	T_{stg}	-55 to +150			°C

(*1) 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	-	-	5.0	μA
Junction Capacitance	C _J	V _R =4V, f=1MHz, per diode	-	25	-	pF

PRODUCT NAME

PRODUCT NAME	PACKAGE	ORDER UNIT	MARKING CODE
XBR12A6-G *	SDIP	3,000 / 2 Reels	DI156S
XBR12A8-G *	SDIP	3,000 / 2 Reels	DI158S
XBR12A10-G *	SDIP	3,000 / 2 Reels	DI1510S

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

* However, the product uses high-melting-point solder paste and lead glass, both of which are not compliant with EU RoHS.

NOTES ON USE

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

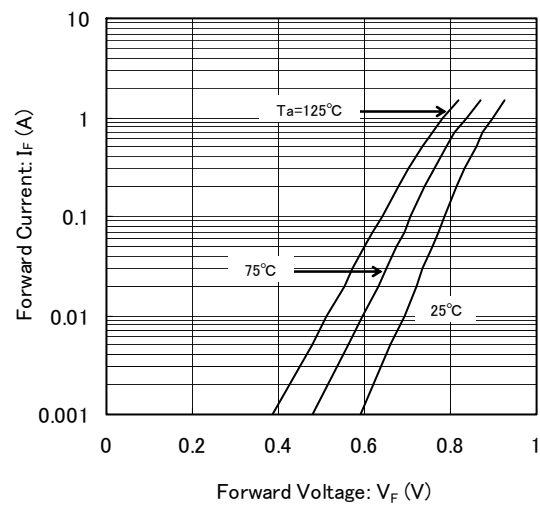
Even within the ratings, in case of high load use continuously such as high temperature, high voltage, high current and thermal stress may cause reliability degradation of the IC.

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

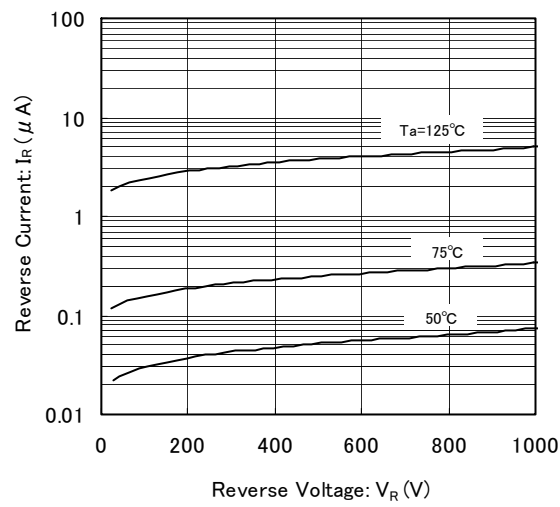
We request that users incorporate fail-safe designs and post-aging protection treatment when using Torex products in their systems.

■ TYPICAL PERFORMANCE CHARACTERISTICS

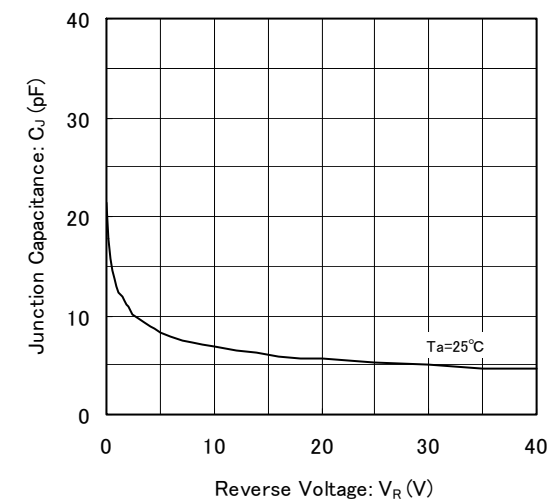
(1) Forward Current vs. Forward Voltage



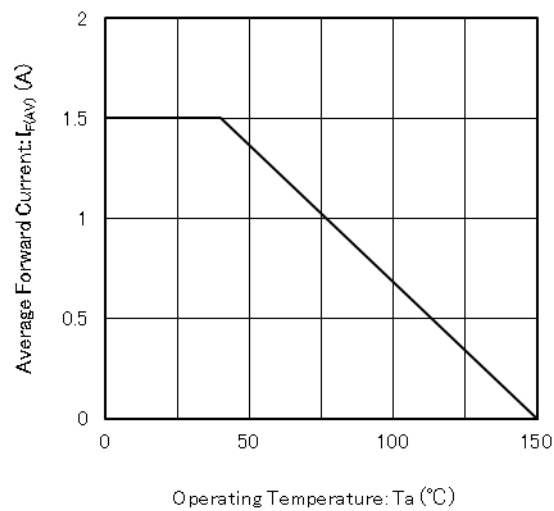
(2) Reverse Current vs. Reverse Voltage



(3) Junction Capacitance vs. Reverse Voltage



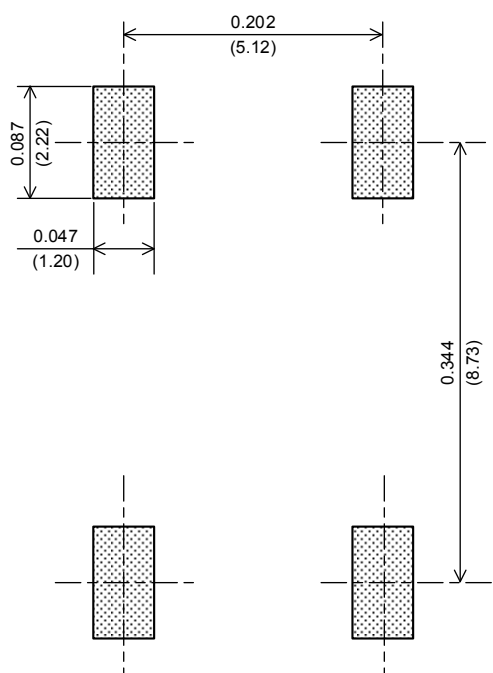
(4) Average Forward Current vs. Operating Temperature



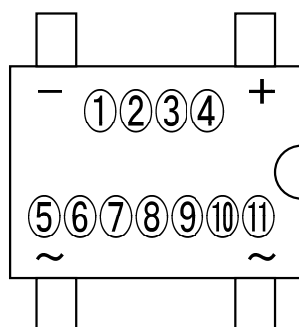
REFERENCE PATTERN LAYOUT

●SDIP

Unit : inch (mm)



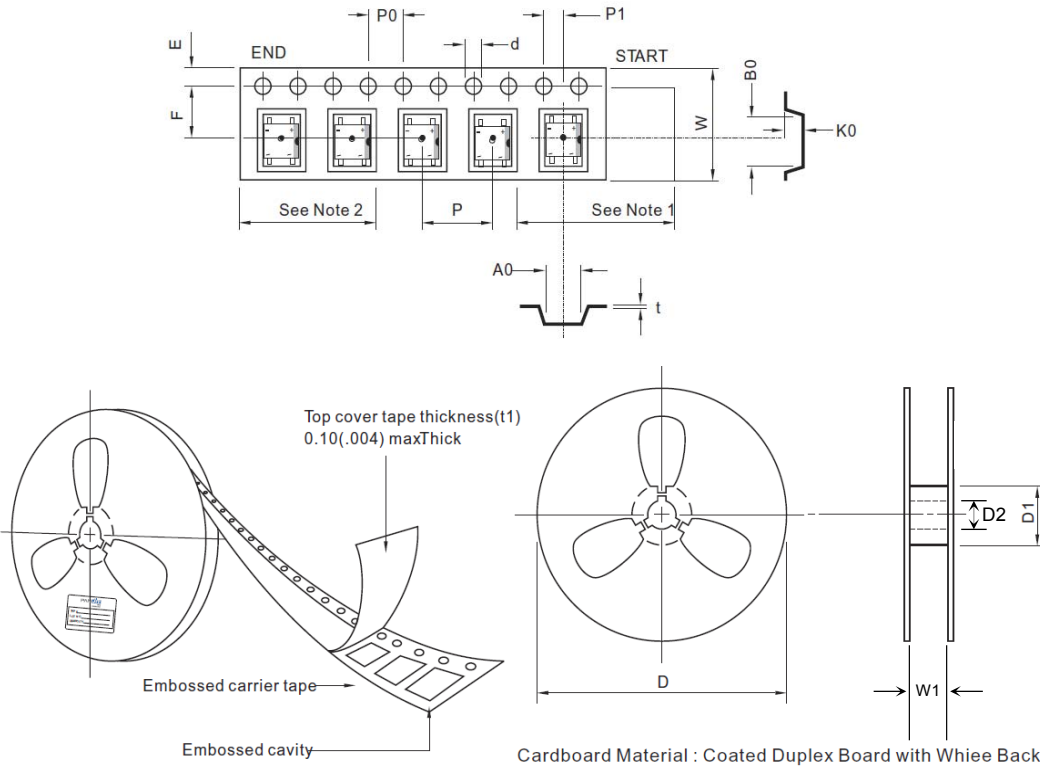
MARKING



①②③④ : Control Number
⑤⑥⑦⑧⑨⑩⑪ : Marking Code

■ TAPING SPECIFICATIONS

● SDIP



Note:

1. There shall be leader of 230mm minimum which may consist of carrier and or cover tape follower by a minimum of 160mm of carrier tape sealed with cover tape.
2. There shall be minimum of 160mm of empty component pockets sealed with cover tape.

SYMBOL	mm	
A0	8.64	
B0	10.41	
d	1.55	
D	330.0	
D1	50.0	min.
D2	13.0	
E	1.75	
F	7.5	
K0	3.81	
P	12.0	
P0	4.0	
P1	2.0	
t	0.32	
W	16.0	
W1	16.4	

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