

Schottky Barrier Diode

■ FEATURES

| | |
|---------------------------------|----------------------|
| Forward Voltage | : $V_F=0.39V$ (TYP.) |
| Forward Current | : $I_{F(AVE)}=3A$ |
| Repetitive Peak Reverse Voltage | : $V_{RM}=30V$ |

■ ABSOLUTE MAXIMUM RATINGS

Ta=25°C

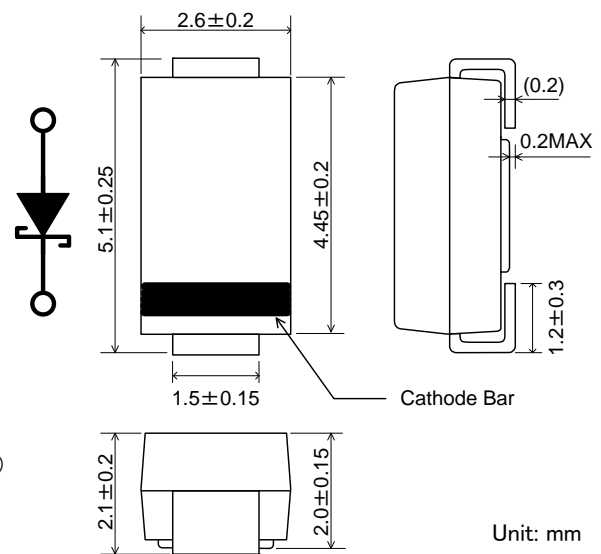
| PARAMETER | SYMBOL | RATINGS | UNITS |
|---|--------------|----------|-------|
| Repetitive Peak Voltage | V_{RM} | 30 | V |
| Reverse Voltage | V_R | 30 | V |
| Forward Current (Average) | $I_{F(AVE)}$ | 3 | A |
| Peak Forward Surge Current ^(*) | I_{FSM} | 70 | A |
| Junction Temperature | T_J | 125 | °C |
| Storage Temperature Range | T_{stg} | -50~+125 | °C |

(*) Non continuous high amplitude 60Hz half-sine wave.

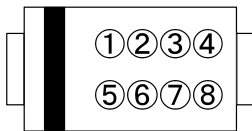
■ APPLICATIONS

- Rectification
- Protection against reverse connection of battery

■ PACKAGING INFORMATION



■ MARKING RULE



①②③④⑤⑥: 303V29 (Product Number)
⑦⑧ : Assembly Lot Number

■ PRODUCT NAME

| PRODUCT NAME | PACKAGE | ORDER UNIT |
|-----------------------------|---------|------------|
| XBS303V29R-G ^(*) | SMA-XG | 2,000/Reel |

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

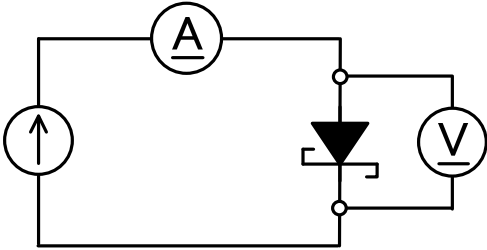
■ ELECTRICAL CHARACTERISTICS

Ta=25°C

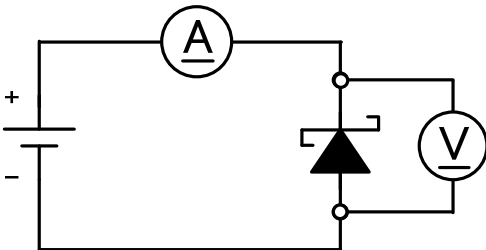
| PARAMETER | SYMBOL | CONDITIONS | MIN. | TYP. | MAX. | UNITS | CIRCUIT |
|-----------------|--------|------------|------|------|------|-------|---------|
| Forward Voltage | V_F | $I_F=3A$ | - | 0.39 | 0.45 | V | ① |
| Reverse Current | I_R | $V_R=30V$ | - | 0.2 | 0.6 | mA | ② |

■ TEST CIRCUITS

Circuit ①



Circuit ②

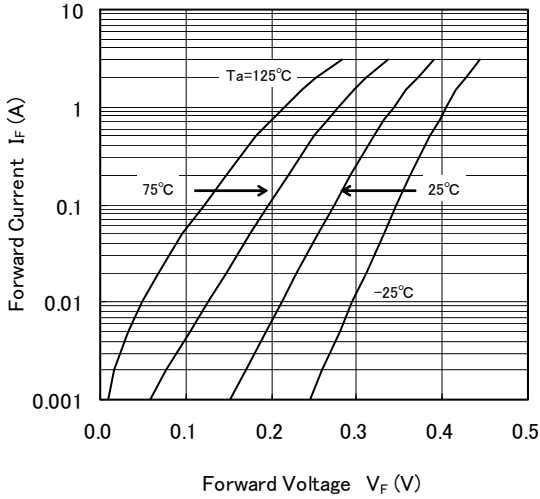


■ NOTES ON USE

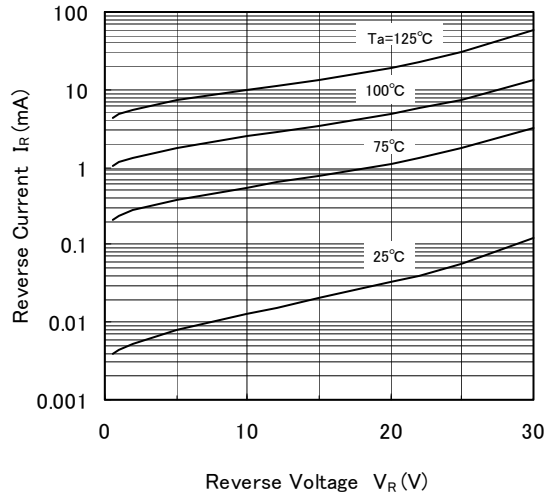
- 1) Please use this IC within the absolute maximum ratings.
- 2) Even within the ratings, in case of high load use continuously such as high temperature, high voltage, high current and thermal stress may cause reliability degradation of the IC. Adequate "Derating" should be taken into consideration while designing.
- 3) 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

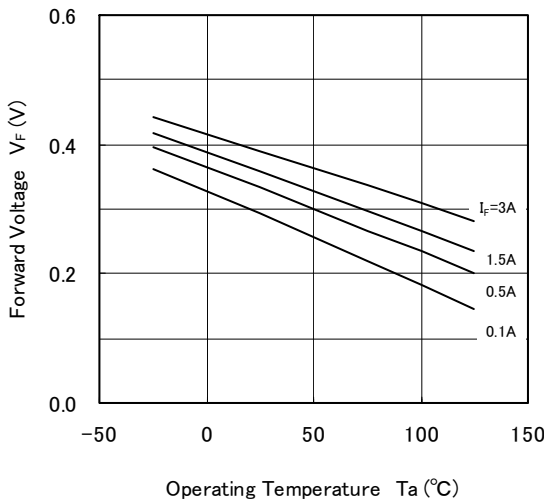
(1) Forward Current vs. Forward Voltage



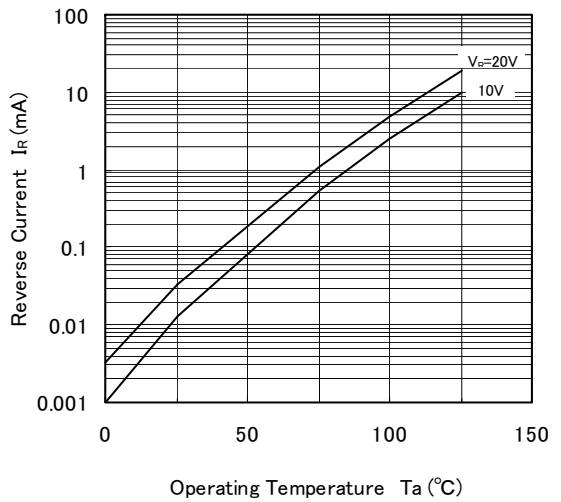
(2) Reverse Current vs. Reverse Voltage



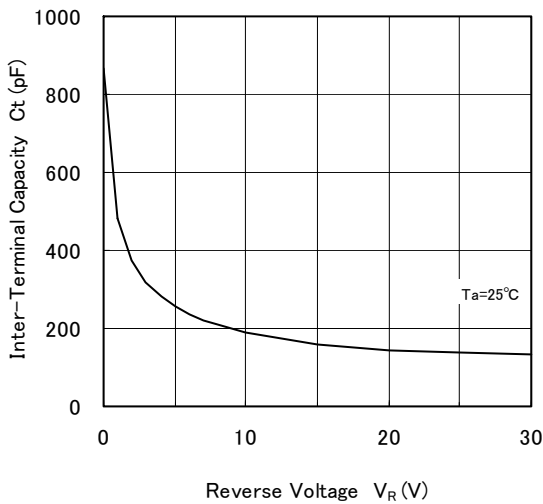
(3) Forward Voltage vs. Operating Temperature



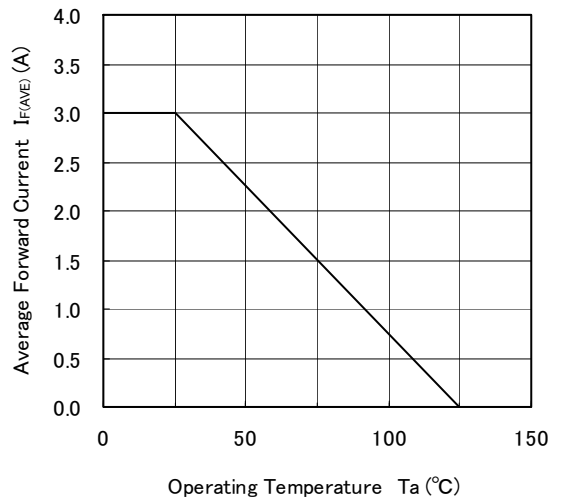
(4) Reverse Current vs. Operating Temperature



(5) Inter-Terminal Capacity vs. Reverse Voltage



(6) Average Forward Current vs. Operating Temperature



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