Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from,Europe,America and south Asia,supplying obsolete and hard-to-find components to meet their specific needs.

With the principle of “Quality Parts,Customers Priority,Honest Operation,and Considerate Service”,our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip,ALPS,ROHM,Xilinx,Pulse,ON,Everlight and Freescale. Main products comprise IC,Modules,Potentiometer,IC Socket,Relay,Connector.Our parts cover such applications as commercial,industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!


## Contact us

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# XBS053V15R-G

TOREX

ETR1607-003

Schottky Barrier Diode, 500mA, 30V Type

## ■FEATURES

Forward Voltage : $V_F$=0.40V (TYP.)

Forward Current : $I_{F(AV)}$=500mA

Repetitive Peak Reverse Voltage : $V_{RM}$=30V

Environmentally Friendly : EU RoHS Compliant, Pb Free

## ■APPLICATIONS

●Rectification

●Protection against reverse connection of battery

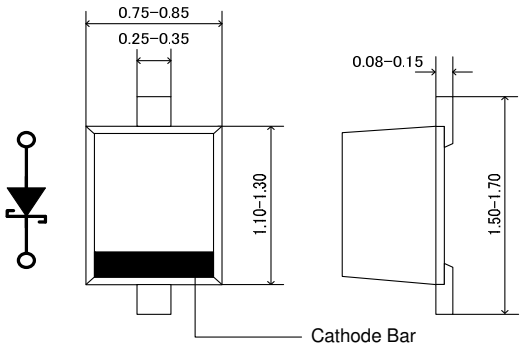
## ■ABSOLUTE MAXIMUM RATINGS

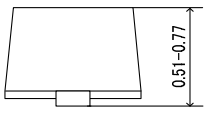
Ta=25℃

| PARAMETER | SYMBOL | RATINGS | UNIT |
|---|---|---|---|
| Repetitive Peak Reverse Voltage | $V_{RM}$ | 30 | V |
| Reverse Voltage (DC) | $V_R$ | 20 | V |
| Forward Current (Average) | $I_{F(AV)}$ | 500 | mA |
| Non Continuous Forward Surge Current *1 | $I_{FSM}$ | 5 | A |
| Junction Temperature | Tj | 125 | ℃ |
| Storage Temperature Range | Tstg | -55～+150 | ℃ |

*1 : Non continuous high amplitude 60Hz half-sine wave.

## ■PACKAGING INFORMATION

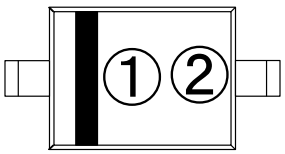



Unit : mm

SOD-523

## ■MARKING RULE




①: 2 (Product Number)

②: Assembly Lot Number

## ■PRODUCT NAME

| PRODUCT NAME | DEVICE ORIENTATION |
|---|---|
| XBS053V15R-G | SOD-523(Halogen & Antimony free) |
| XBS053V15R | SOD-523 |

* The "-G" suffix indicates that the products are Halogen and Antimony free as well as being fully RoHS compliant.

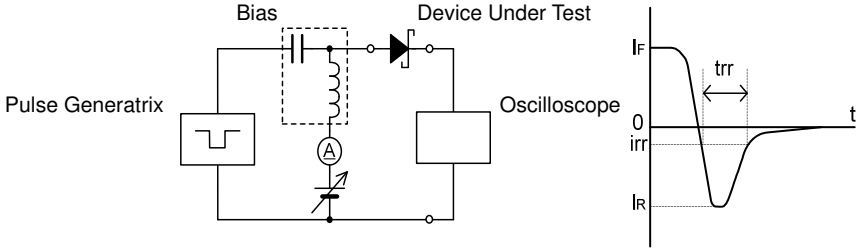
* The device orientation is fixed in its embossed tape pocket.

## ■ELECTRICAL CHARACTERISTICS

Ta=25℃

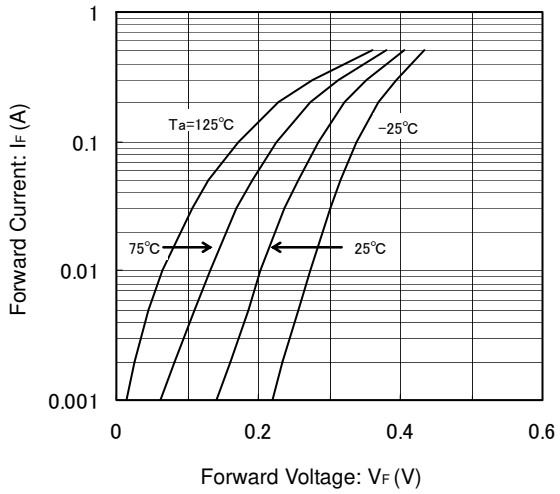
| PARAMETER | SYMBOL | TEST CONDITIONS | LIMITS | | | UNIT |
|---|---|---|---|---|---|---|
| | | | MIN. | TYP. | MAX. | |
| Forward Voltage | $V_{F1}$ | $I_F$=100mA | - | 0.28 | - | V |
| | $V_{F2}$ | $I_F$=500mA | - | 0.40 | 0.47 | V |
| Reverse Current | $I_R$ | $V_R$=20V | - | - | 100 | μA |
| Inter-Terminal Capacity | Ct | $V_R$=10V , f=1MHz | - | 12 | - | pF |
| Reverse Recovery Time *2 | trr | $I_F$=$I_R$=10mA , irr=1mA | - | 8 | - | ns |

*2 : trr measurement circuit

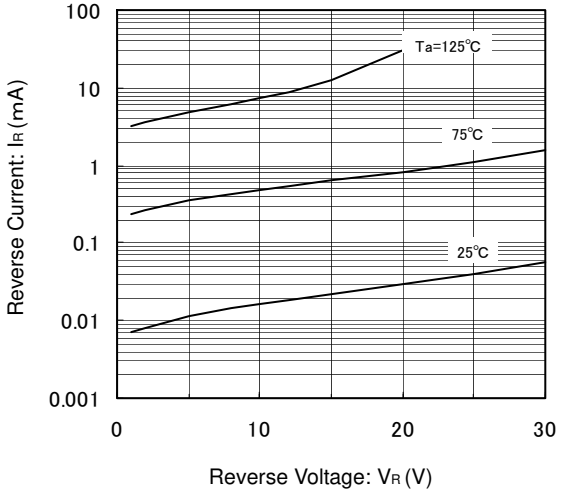


## ■TYPICAL PERFORMANCE CHARACTERISTICS

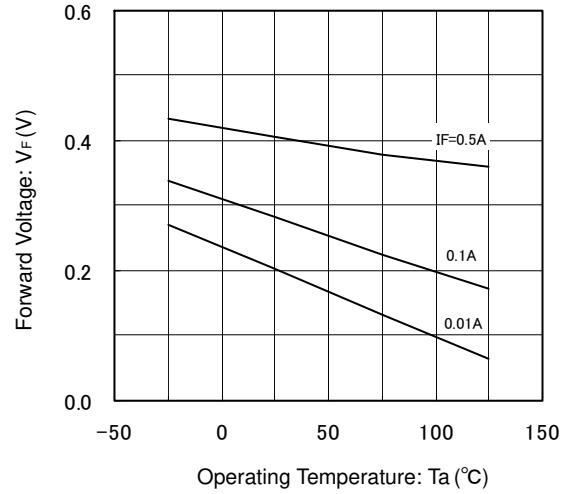
(1) Forward Current vs. Forward Voltage



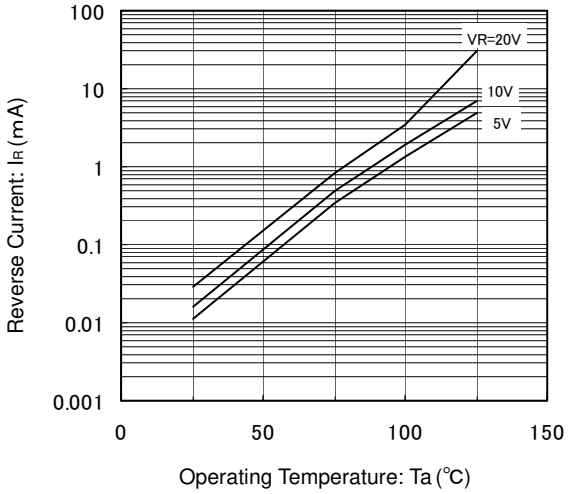

(2) Reverse Current vs. Reverse Voltage



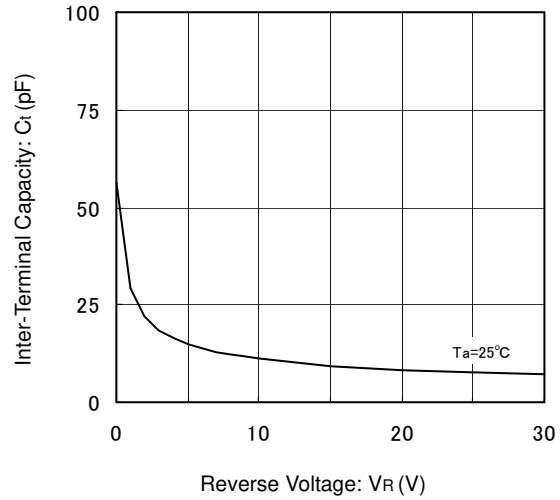

(3) Forward Voltage vs. Operating Temperature



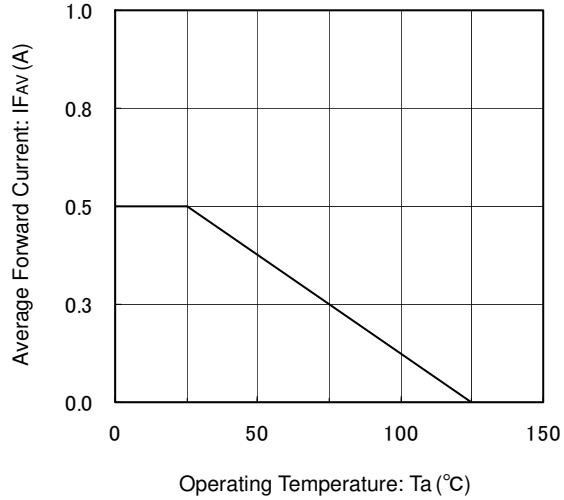

(4) Reverse Current vs. Operating Temperature




(5) Inter-Terminal Capacity vs. Reverse Voltage




(6) Average Forward Current vs. Operating Temperature



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