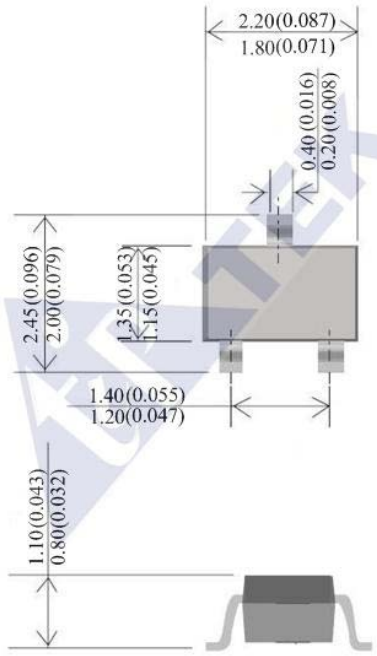
# 200mW SURFACE MOUNT SWITCHING DIODES




CASE：SOT-323

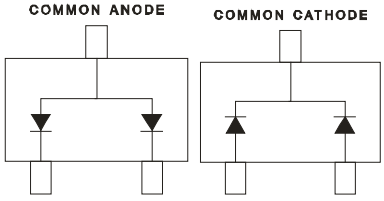
DIMENSIONS IN MILLIMETERS AND (INCHES)

## FEATURES

- FAST SWITCHING SPEED
- SURFACE MOUNT PACKAGE IDEALLY SUITED FOR AUTOMATIC INSERTION
- ELECTRICALLY IDENTICAL TO STANDERD JEDEC
- HIGH CONDUCTANCE
- BOTH NORMAL AND Pb FREE PRODUCT ARE AVAILABLE:
  NORMAL:80~95%Sn,5~20%Pb
  Pb FREE:98.5% Sn ABOVE

## MECHANICAL DATA

- CASE：SOT-323 PLASTIC
- TERMINALS：SOLDERABLE PER MIL-STD-202 METHOD 208
- APPROX.WEIGHT:0.006GRAM
- Pb Free: BAW56W/BAV70W
  Halogen Free: BAW56W-H/BAV70W-H




## MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

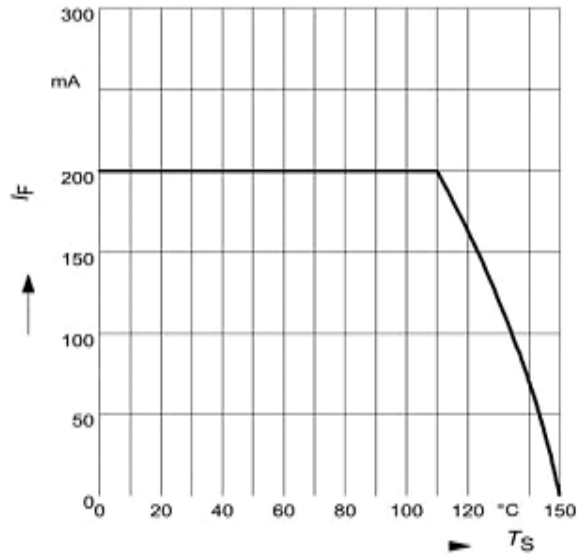
**RATINGS AT 25°C AMBIENT TEMPERATURE UNLESS OTHERWISE SPECIFIED.**

| PARAMETER | SYMBOL | BAW56W | BAV70W | UNITS |
|---|---|---|---|---|
| MAXIMUM REVERSE VOLTAGE | $V_R$ | 70 | | V |
| PEAK FORWARD CURRENT | $I_F$ | 200 | | mA |
| POWER DISSIPATION DERATE ABOVE 25℃ | $P_{TOT}$ | 200 | | mW |
| JUNCTION TEMPERATURE | $T_J$ | 150 | | ℃ |
| STORAGE TEMPERATURE | $T_{stg}$ | -65 TO +150 | | ℃ |

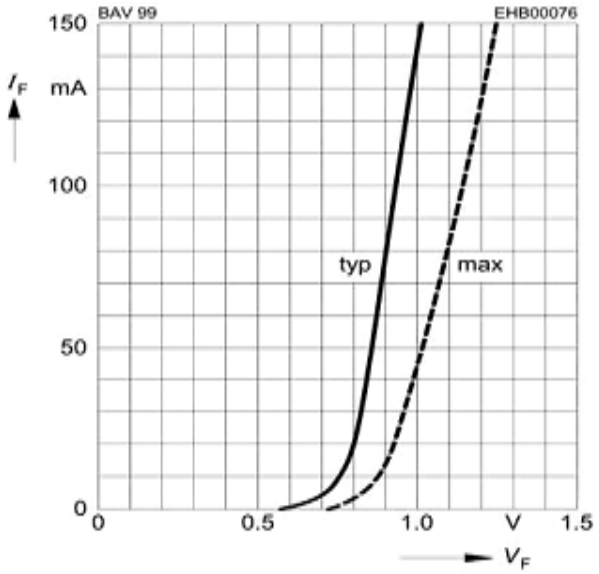
**ELECTRICAL CHARACTERISTICS ($A_T$ $T_A$ =25°C UNLESS OTHERWISE NOTED)**

| PARAMETER | SYMBOL | BAW56W | BAV70W | UNITS |
|---|---|---|---|---|
| REVERSE BREAKDOWN VOLTAGE($I_R$=100 $\mu$ A) | $V_{(BR)}$ | 70(MIN) | | V |
| MAXIMUM FORWARD VOLTAGE | $V_F$ | 0.715@IF=0.001A<br>0.855@IF=0.01A<br>1.0@IF=0.05A<br>1.25@IF=0.15A | | V |
| MAXIMUM DC REVERSE CURRENT AT 70V<br>20V | $I_R$ | 2.5<br>0.025 | | μA |
| MAXIMUM DIODE CAPACITANCE (NOTE 1) | $C_D$ | 2.0 | | pF |
| MAXIMUM REVERSE RECOVERY (NOTE 2) | $T_{RR}$ | 6 | | nS |
| CIRCUIT FIGURE | | COMMON ANODE | COMMON CATHODE | |

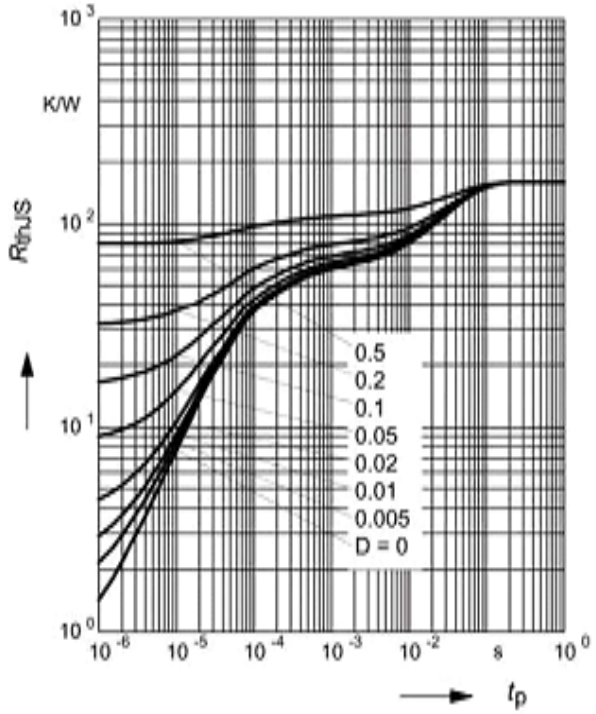
NOTE: 1. $C_D$ AT $V_R$=0,f=1MHZ 2.FROM $I_F$= $I_R$=10mA ,$I_{RR}$=1mA, $R_L$=100Ω

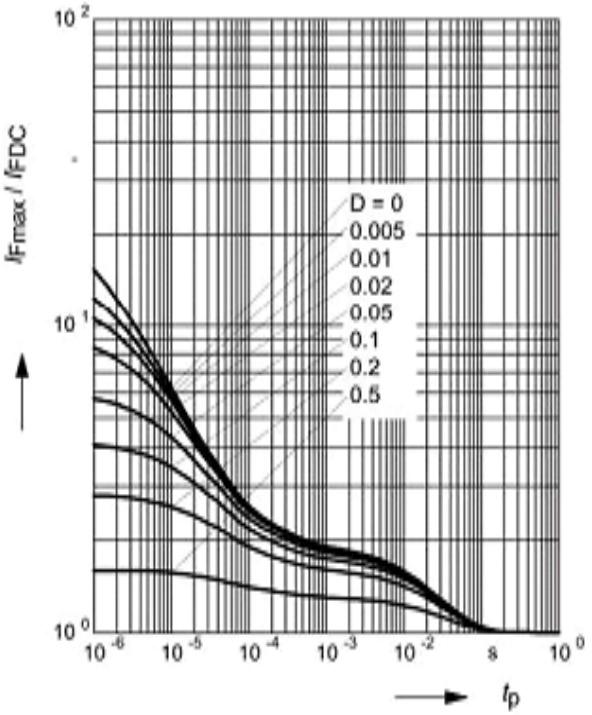


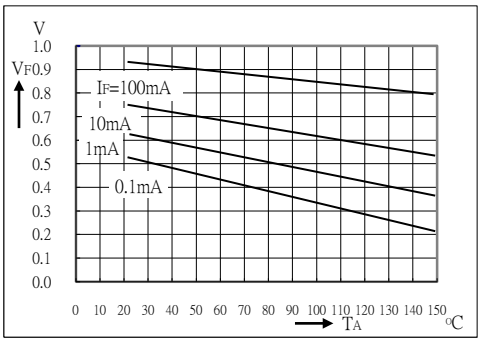

**Permissible Pulse Load** $R_{thJS} = f(t_p)$



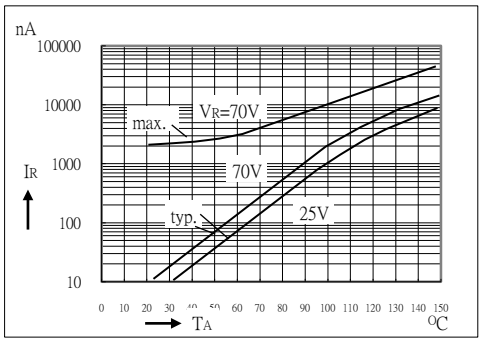

**Permissible Pulse Load**
$I_{Fmax} / I_{FDC} = f(t_p)$



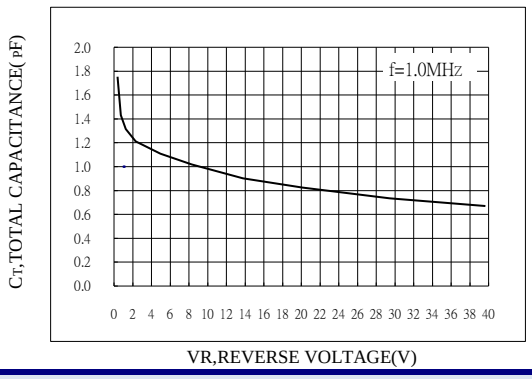






FORWARD VOLTAGE VF=f(TA)




REVERSE CURRENT IR=f (TA)




Typiacl Capacitance vs. Reverse Voltage