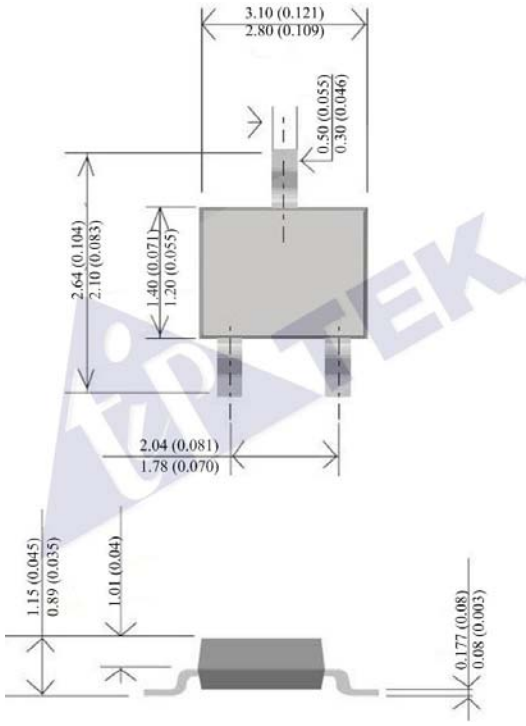
SURFACE MOUNT SWITCHING DIODES



CASE：SOT-23

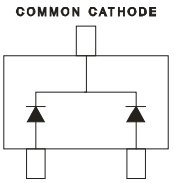
DIMENSIONS IN MILLIMETERS AND (INCHES)

FEATURES

- FAST SWITCHING SPEED
- ELECTRICALLY IDENTICAL TO STANDERD JEDEC
- HIGH CONDUCTANCE
- SURFACE MOUNT PACKAGE IDEALLY SUITED FOR AUTOMATIC INSERTION
- 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-23 PLASTIC CASE
- TERMINALS：SOLDERABLE PER MIL-STD-202, METHOD208
- APPROX.WEIGHT:0.008GRAM
- Pb Free: BAV70
  Halogen Free: BAV70-H



MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

RATINGS AT 25°C AMBIENT TEMPERATURE UNLESS OTHERWISE SPECIFIED.

PARAMETER	SYMBOL	BAV70	UNITS
MAXIMUM REVERSE VOLTAGE	V_R	70	V
PEAK REVERSE VOLTAGE	V_{RM}	100	V
PEAK FORWARD CURRENT	I_F	200	mA
PEAK FORWARD SURGE CURRENT	I_{FM}	500	mA
POWER DISSIPATION DERATE ABOVE 25℃(NOTE 1)	P_D	225	mW
JUNCTION TEMPERATURE	T_J	-55 TO +150	℃
STORAGE TEMPERATURE	T_{stg}	-55 TO +150	℃

ELECTRICAL CHARACTERISTICS (AT T_A =25°C UNLESS OTHERWISE NOTED)

PARAMETER	SYMBOL	BAV70	UNITS
MAXIMUM FORWARD VOLTAGE	V_F	0.715@IF=0.001A 0.855@IF=0.01A 1.0@IF=0.05A 1.25@IF=0.15A	V
MAXIMUM DC REVERSE CURRENT AT 70V 25V(150℃) 70V(150℃)	I_R	2.5 60 100	μA
JUNCTION CAPACITANCE (NOTE 1)	C_J	1.5	pF
MAXIMUM REVERSE RECOVERY (NOTE 2)	t_{RR}	6.0	nS

NOTE: 1.FR-5=1.0x0.75x0.062 in
2. C_J AT V_R=0,f=1MHZ 2.FROM I_F=10mA TO I_R=1mA,VR=6VOLTS, R_L=100Ω

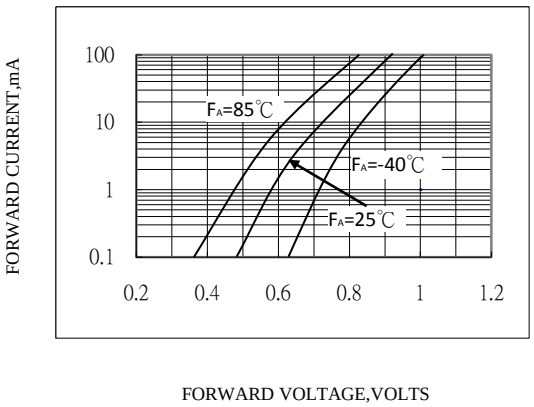


Fig.1-FORWARD CURRENT AS A FUNCTION OF FORWARD VOLTAGE

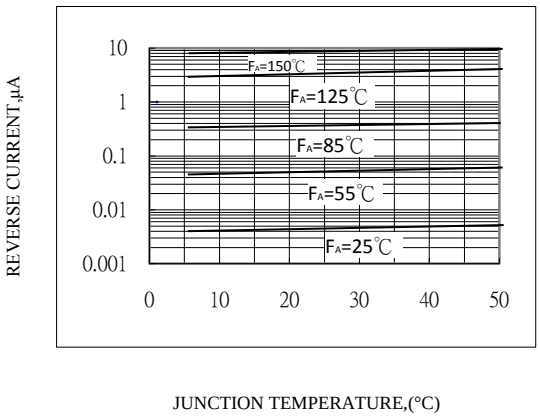


Fig.2-REVERSE CURRENT AS A FUNCTION OF JUNCTION

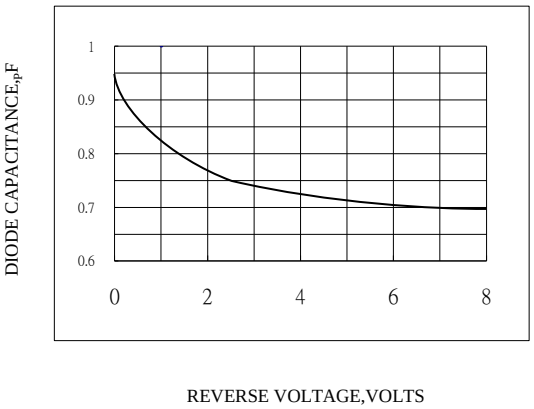


Fig.3-DIODE CAPACITANCE AS A FUNCTION OF REVERSE VOLTAGE ; TYPICAL VALUES.