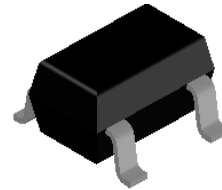


### Features

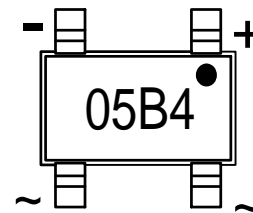
- Low profile space
- Ideal for printed circuit board
- Low reverse leakage
- Applied in LED lighting
- High ring wave immunity capability
- High temperature soldering guaranteed:  
260°C/10 seconds
- Component in accordance to  
RoHS 2011/65/EU and WEEE 2002/96/EC



RoHS  
COMPLIANT

### Mechanical Data

- **Case:** IBS  
The plastic package carries Underwriters Laboratory  
Flammability Classification 94V-0
- **Terminals:** Solder plated, solderable per  
MIL-STD-750, Method 2026
- **Polarity:** Mark a dot at the positive position  
The other end on the same side is negative  
AC pole is on the other side
- **Mounting Position:** Any



### Major Ratings and Characteristics

$I_{F(AV)}$	0.5A
$V_{RRM}$	400V to 1000V
$I_{FSM}$	20A
$V_F$	0.95V
$T_{Jmax.}$	125°C

### Maximum Ratings & Thermal Characteristics ( $T_A=25^\circ\text{C}$ unless otherwise noted)

Items	Symbol	IB054S	IB056S	IB058S	IB0510S	Unit
Maximum repetitive peak reverse voltage	$V_{RRM}$	400	600	800	1000	V
Maximum RMS voltage	$V_{RMS}$	280	420	560	700	V
Maximum DC blocking voltage	$V_{DC}$	400	600	800	1000	V
Average forward rectified current	$I_{F(AV)}$	0.5				A
Peak forward surge current 8.3 ms single half sine-wave superimposed on rated load	$I_{FSM}$	20				A
Rating for fusing ( $t < 8.3$ ms)	$I^2t$	1.66				A <sup>2</sup> s
Thermal resistance from junction to ambient	$R_{\theta JA}^{(1)}$	180				°C/W
	$R_{\theta JA}^{(2)}$	67				
Thermal resistance from junction to lead	$R_{\theta JL}$	35				
Operating junction and storage temperature range	$T_J, T_{STG}$	-55 to +125				°C

Note 1: On 1.6mm thick glass epoxy P.C.B.(1OZ) mounted on 0.05 x 0.05" (1.3 x 1.3 mm) solder pads.

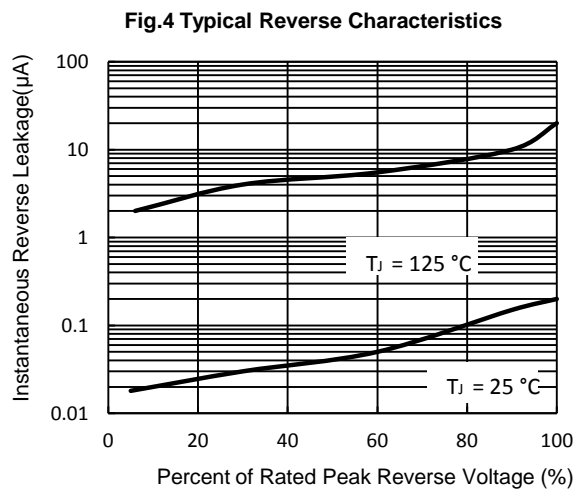
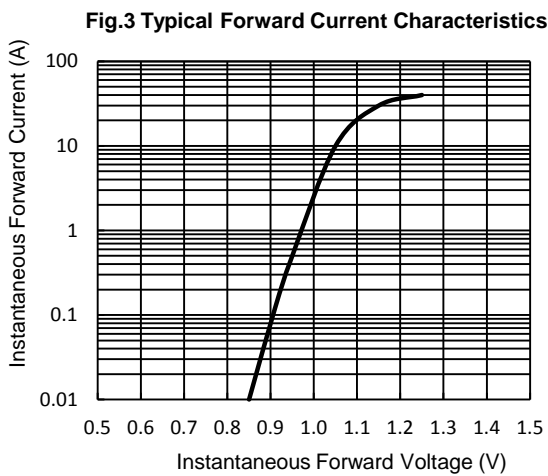
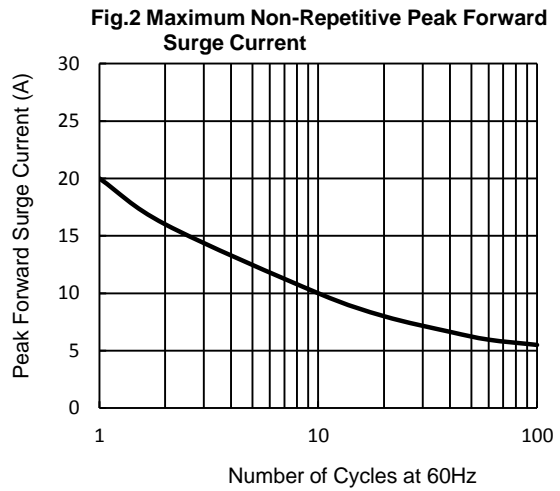
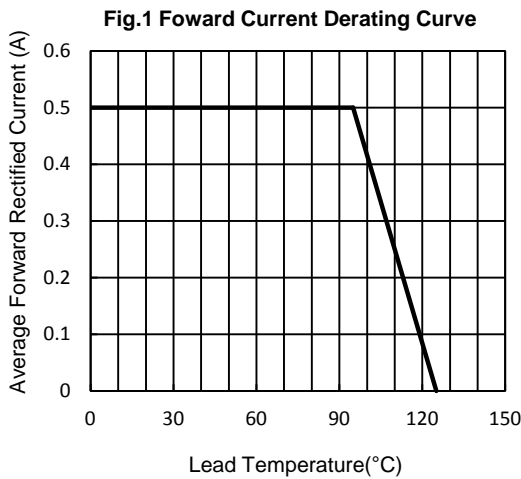
Note 2: On 1.6mm thick aluminum substrate P.C.B.(1OZ) with an area of 0.8" x 0.8" (20 x 20 mm) mounted on 0.05 x 0.05" (1.3 x 1.3 mm) solder pad.

## Electrical Characteristics (T<sub>A</sub> = 25 °C unless otherwise noted)

Items	Test conditions	Symbol	Min.	Typ.	Max.	Unit
Instantaneous forward	I <sub>F</sub> =0.5A <sup>(3)</sup>	V <sub>F</sub>	-	0.95	1.10	V
Reverse current	V <sub>R</sub> =V <sub>DC</sub>	I <sub>R</sub>	-	-	5.0	μA
					T <sub>J</sub> =25 °C	
					100.0	

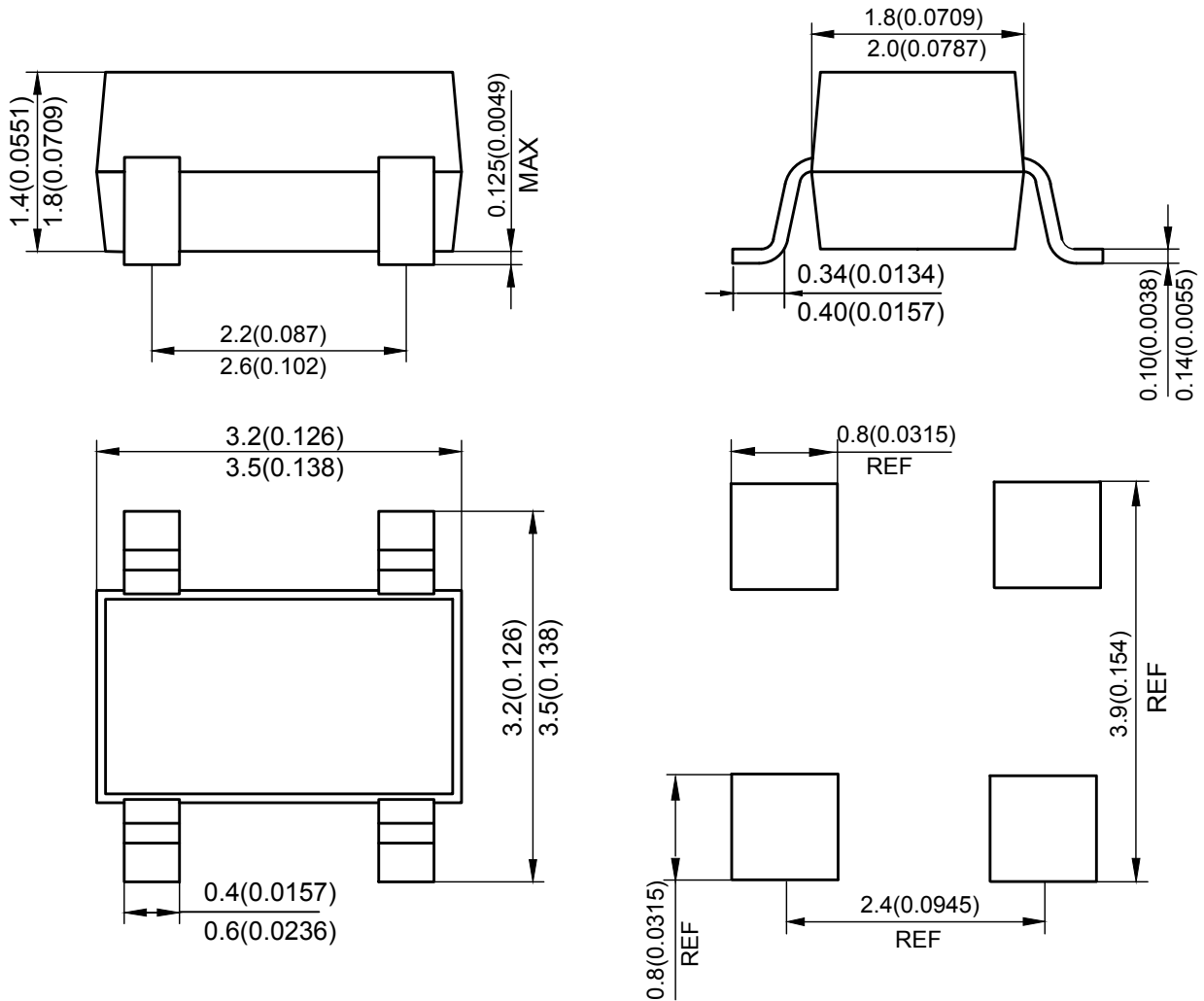
Note 3: Pulse test:300μs pulse width,1% duty cycle.

## Characteristics Curves



## Package Outline

### IBS



Dimensions in millimeters(inches)