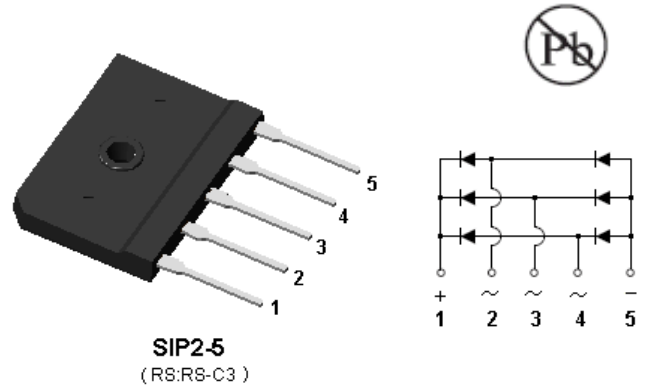


CURRENT 50 Ampere  
 VOLTAGE RANG 800 to 1600 Volts

## 3SRB5008 THRU 3SRB5016

### Features

- This series is SGS listed under the Recognized Component Index, file number SZXEC1902259902
- Ideal for printed circuit board
- Glass passivated chip junction
- Low forward voltage drop
- Low leakage current
- High forward surge capability
- 2500V Isolation ratings
- High temperature soldering: 260°C/10 seconds at terminals
- Component in accordance to RoHS 2002/95/1 and WEEE 2002/96/EC



### Mechanical Date

- **Case:** SIP2-5 (RS-C3) Molded plastic over glass passivated chip
- **Terminals:** Solder plated, solderable per J-STD-002 and JESD22-B102D
- **Polarity:** Polarity symbols marked on body

### Major Ratings and Characteristics

$I_{F(AV)}$	<b>50A</b>
$V_{RRM}$	<b>800V to 1600V</b>
$I_{FSM}$	<b>500 A</b>
$I_R$	<b>10<math>\mu</math>A</b>
$V_F$	<b>1.3V</b>
$T_{Jmax.}$	<b>150°C</b>

### Maximum Ratings & Thermal Characteristics (T<sub>A</sub> = 25 °C unless otherwise noted)

Items	Symbol	3SRB5008	3SRB5010	3SRB5012	3SRB5016	UNIT
Maximum repetitive peak reverse voltage	$V_{RRM}$	800	1000	1200	1600	V
Maximum RMS voltage	$V_{RMS}$	560	700	840	1120	V
Maximum DC blocking voltage	$V_{DC}$	800	1000	1200	1600	V
Maximum average forward rectified current at T <sub>c</sub> =80°C (With heatsink)	$I_{F(AV)}$	50				A
Peak forward surge current 8.3 ms single half sine-wave superimposed on rated load (JEDEC Method)	$I_{FSM}$	500				A
I <sup>2</sup> t Rating for Fusing (t<8.3ms)	I <sup>2</sup> t	1000				A <sup>2</sup> s
Isolation Breakdown Voltage(R.M.S) @a.c.50HZ;r.m.s.;1min	$V_{isol}$	2500				V
Thermal resistance junction to case per leg <sup>(1)</sup>	$R_{\theta JC}$	0.96				°C/W
Operating junction and storage temperature range	T <sub>J</sub> ,T <sub>STG</sub>	-55 to +150				°C

Note 1: With heatsink, Thermal resistance test is according to JESD 282b.

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

Items	Test conditions	Symbol	Min	Type	Max	UNIT
Instantaneous forward voltage per leg	$I_F=25A^{(2)}$	$V_F$	-	1.00	1.30	V
Reverse current per leg	$V_R=V_{DC}$ T <sub>J</sub> =25°C T <sub>J</sub> =125°C	$I_R$	-	-	10 500	$\mu$ A

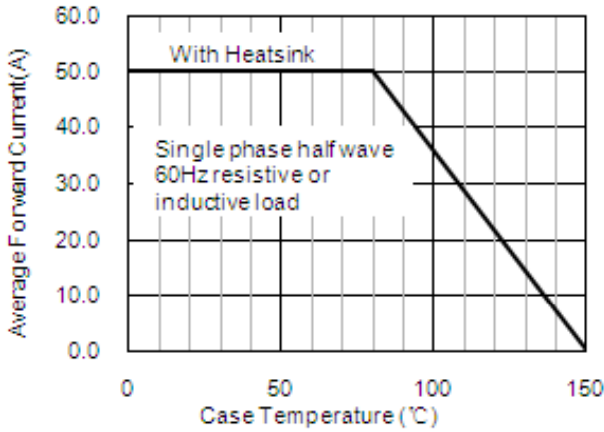
Note2: Pulse test:300 $\mu$ s pulse width,1% duty crcle.

CURRENT 50 Ampere  
 VOLTAGE RANG 800 to 1600 Volts

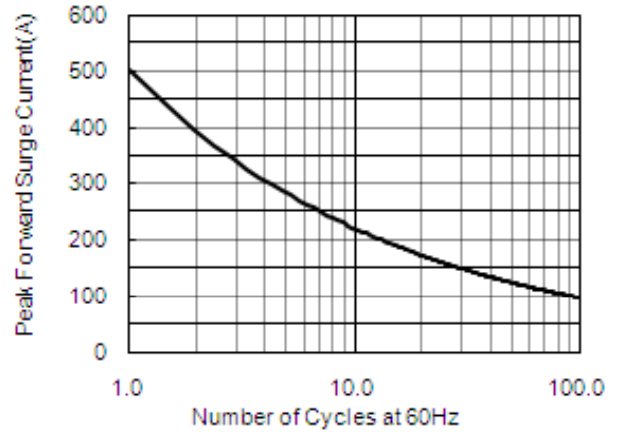
**3SRB5008 THRU 3SRB5016**

**Rating and Characteristic Curves** ( TA=25°C Unless otherwise noted )

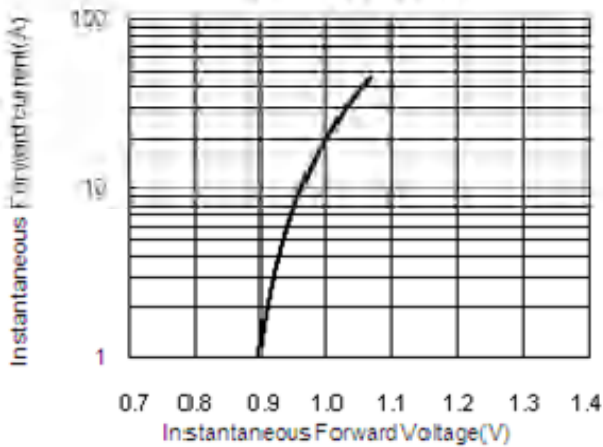
**Fig.1 Forward Current Derating Curve**



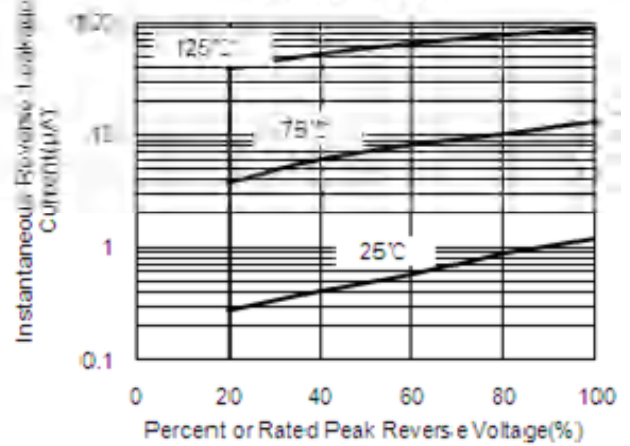
**Fig.2 Maximum Non-Repetitive Peak Forward Surge Current**



**Fig.3 Typical Instantaneous Forward Characteristics**



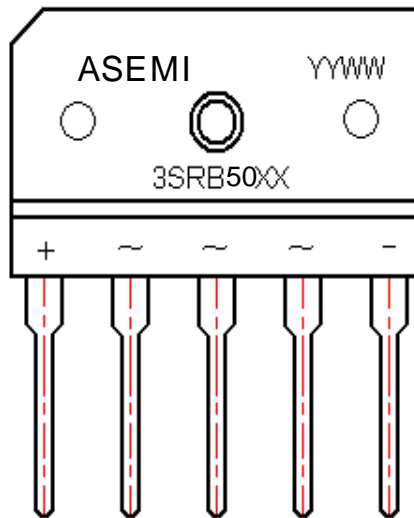
**Fig.4 Typical Reverse Leakage Characteristics**



CURRENT 50 Ampere  
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**3SRB5008 THRU 3SRB5016**

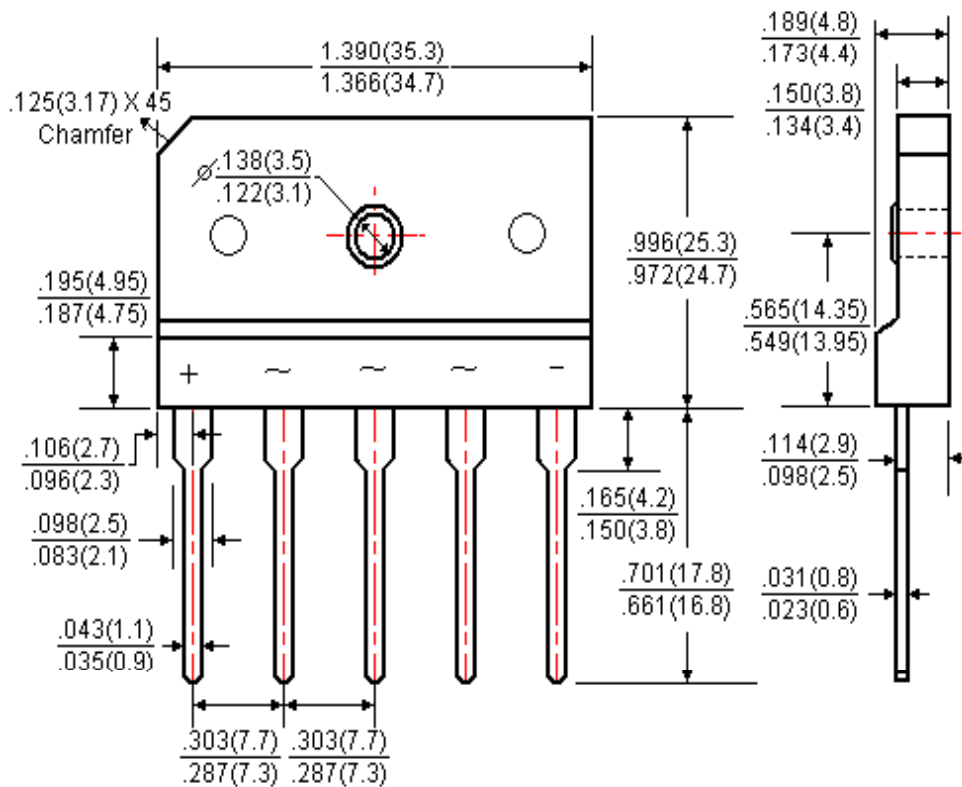
**Marking**



ASEMI = Trademark  
 YYWW = Year And Week When  
 does it product  
 3SRB50XX = Marking Code  
 XX = 08, 10, 12, 16

**Package Outline**

**SIP2-5**  
(RS:RS-C3)



Dimensions in inches and (millimeters)