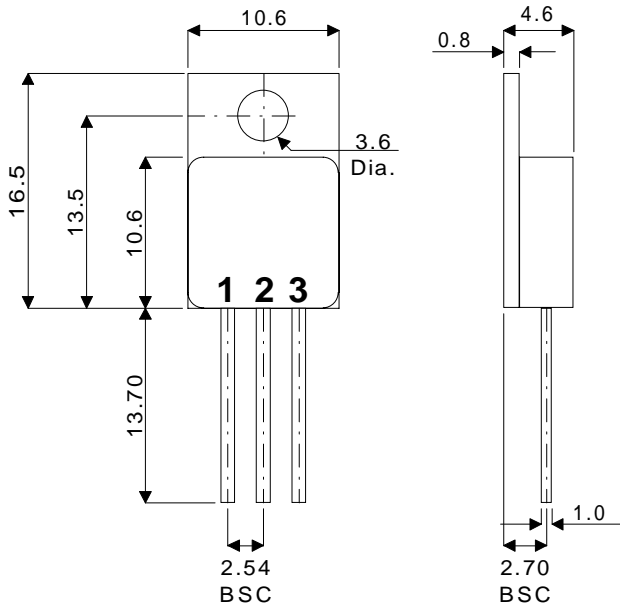


**MECHANICAL DATA**

Dimensions in mm



**TO220 (TO-257AB) METAL PACKAGE**

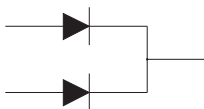
**DUAL SCHOTTKY  
BARRIER DIODE IN  
TO220 METAL PACKAGE  
FOR HI-REL APPLICATIONS**

**FEATURES**

- HERMETIC TO220 METAL PACKAGE
- ISOLATED CASE
- AVAILABLE IN COMMON CATHODE, COMMON ANODE AND SERIES VERSIONS
- SCREENING OPTIONS AVAILABLE
- OUTPUT CURRENT 30A
- LOW  $V_F$
- LOW LEAKAGE

**Common Cathode**

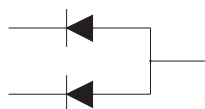
SB30-45M  
SB30-40M



1 = A<sub>1</sub> Anode 1  
2 = K Cathode  
3 = A<sub>2</sub> Anode 2

**Common Anode**

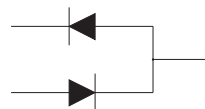
SB30-45AM  
SB30-40AM



1 = K<sub>1</sub> Cathode 1  
2 = A Anode  
3 = K<sub>2</sub> Cathode 2

**Series Connection**

SB30-45RM  
SB30-40RM

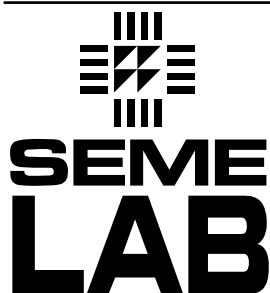


1 = K<sub>1</sub> Cathode 1  
2 = Centre Tap  
3 = A<sub>2</sub> Anode

**ABSOLUTE MAXIMUM RATINGS** ( $T_{case} = 25^\circ C$  unless otherwise stated)

	SB30-40M SB30-40AM SB30-40RM	SB30-45M SB30-45AM SB30-45RM
$V_{RRM}$ Peak Repetitive Reverse Voltage	40V	45V
$V_{RSM}$ Peak Non-Repetitive Reverse Voltage	40V	45V
$V_R$ Continuous Reverse Voltage	40V	45V
$I_{F(AV)}$ Maximum Average Forward Current	30A	
$I_{FSM}$ Peak Non-Repetitive Surge Current at 50Hz (per leg)	245A	
$T_{STG}$ Storage Temperature Range	-55°C to 150°C	
$T_J$ Maximum Operating Junction Temperature	150°C	

Semelab Plc reserves the right to change test conditions, parameter limits and package dimensions without notice. Information furnished by Semelab is believed to be both accurate and reliable at the time of going to press. However Semelab assumes no responsibility for any errors or omissions discovered in its use. Semelab encourages customers to verify that datasheets are current before placing orders.



**SB30-45M**  
**SB30-45AM**  
**SB30-45RM**

**SB30-40M**  
**SB30-40AM**  
**SB30-40RM**

**ELECTRICAL CHARACTERISTICS** (Per Diode)( $T_{CASE} = 25^{\circ}C$  unless otherwise stated)

Parameter	Test Conditions	Min.	Typ.	Max.	Unit
$V_F$ Maximum Forward Voltage Drop (per leg)*	$I_F = 15A$ $T_J = 25^{\circ}C$			0.6	V
	$I_F = 20A$ $T_J = 25^{\circ}C$			0.7	
	$I_F = 15A$ $T_J = 125^{\circ}C$			0.7	
	$I_F = 20A$ $T_J = 125^{\circ}C$			0.8	
$I_R$ Reverse Maximum Leakage Current*	$V_R = V_{RRM}$ $T_J = 25^{\circ}C$			500	$\mu A$
	$V_R = V_{RRM}$ $T_J = 125^{\circ}C$			30	mA
$C_d$ Junction Capacitance	$V_R = 5 V$ $f = 1 MHz$		500		pF

\*Pulse test  $t_p=300\mu s$      $\delta \leq 2\%$

Parameter	Unit
$R_{TH(j-c)}$ Maximum Thermal Resistance Junction To Case (per package)	1.3 $^{\circ}C/W$
$R_{TH(j-c)}$ Maximum Thermal Resistance Junction To Case (per leg)	2.4 $^{\circ}C/W$

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