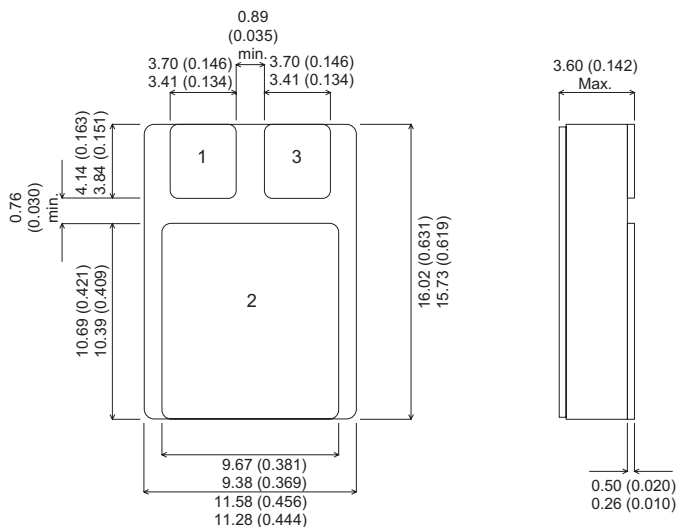


MECHANICAL DATA

Dimensions in mm



SMD1 (TO-276AB) CERAMIC PACKAGE

**DUAL SCHOTTKY
 BARRIER DIODE
 IN CERAMIC SURFACE
 MOUNT PACKAGE FOR
 HI-REL APPLICATIONS**

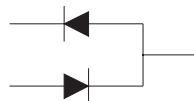
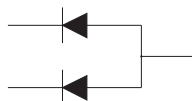
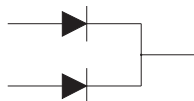
FEATURES

- HERMETIC CERAMIC PACKAGE
- AVAILABLE IN COMMON CATHODE, COMMON ANODE AND SERIES VERSIONS
- SCREENING OPTIONS AVAILABLE
- OUTPUT CURRENT 30A
- LOW V_F
- LOW LEAKAGE

Common Cathode
SB30-45M

Common Anode
SB30-45A

Series Connection
SB30-45R



1 = A₁ Anode 1
 2 = K Cathode
 3 = A₂ Anode 2

1 = K₁ Cathode 1
 2 = A Anode
 3 = K₂ Cathode 2

1 = K₁ Cathode 1
 2 = Centre Tap
 3 = A₂ Anode

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

V_{RRM}	Peak Repetitive Reverse Voltage	45V
V_{RSM}	Peak Non-Repetitive Reverse Voltage	45V
V_R	Continuous Reverse Voltage	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.

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

Parameter		Test Conditions		Min.	Typ.	Max.	Unit
V_F	Maximum Forward Voltage Drop (per diode)*	$I_F = 15A$	$T_J = 25^{\circ}C$			0.6	V
		$I_F = 30A$	$T_J = 25^{\circ}C$			0.75	
		$I_F = 15A$	$T_J = 125^{\circ}C$			0.55	
		$I_F = 30A$	$T_J = 125^{\circ}C$			0.7	
I_R	Reverse Maximum Leakage Current (per diode)*	$V_R = 45V$	$T_J = 25^{\circ}C$			2	mA
		$V_R = 45V$	$T_J = 125^{\circ}C$			75	
C_d	Junction Capacitance	$V_R = 5 V$	$f = 1 MHz$		900		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 diode)	2.4 $^{\circ}C/W$

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.

Semelab plc. Telephone +44(0)1455 556565. Fax +44(0)1455 552612.

E-mail: sales@semelab.co.uk Website: <http://www.semelab.co.uk>

Document Number 2755

Issue 2