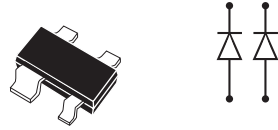


**BAW100**  
**SURFACE MOUNT**  
**DUAL, ISOLATED HIGH SPEED**  
**SILICON SWITCHING DIODES**



**SOT-143 CASE**

# Central<sup>TM</sup>

**Semiconductor Corp.**

**DESCRIPTION:**

The CENTRAL SEMICONDUCTOR BAW100 is a Dual, Isolated High Speed Silicon Switching Diode in a SOT-143 surface mount package, designed for high speed switching applications.

**MARKING CODE: CJSS**

**MAXIMUM RATINGS:** ( $T_A=25^\circ\text{C}$ )

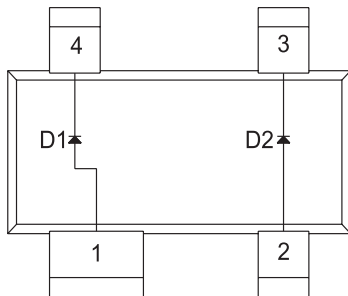
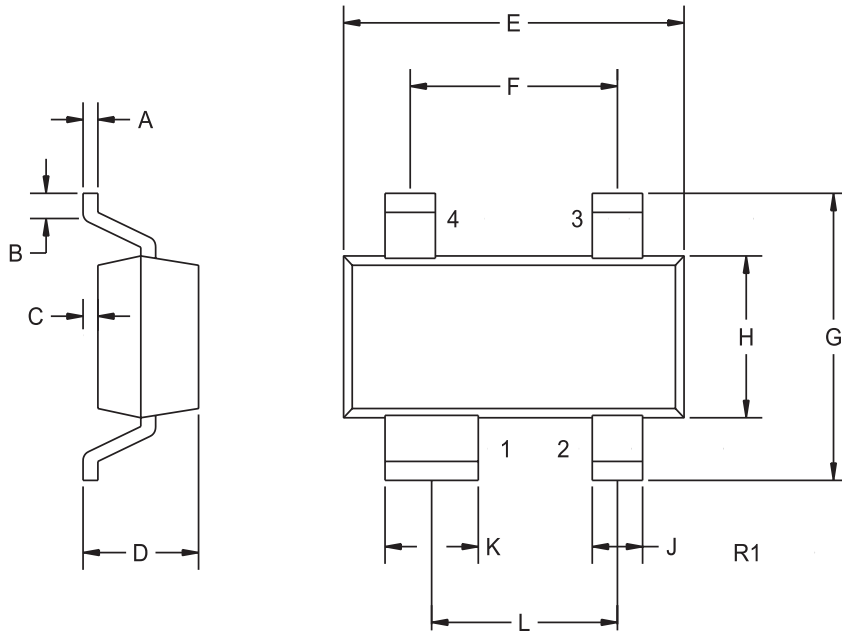
	SYMBOL		UNITS
Continuous Reverse Voltage	$V_R$	75	V
Peak Repetitive Reverse Voltage	$V_{RRM}$	85	V
Continuous Forward Current	$I_F$	250	mA
Peak Repetitive Forward Current	$I_{FRM}$	250	mA
Forward Surge Current, $t_p=1 \mu\text{s}$	$I_{FSM}$	4000	mA
Forward Surge Current, $t_p=1 \text{ms}$	$I_{FSM}$	2000	mA
Forward Surge Current, $t_p=1 \text{s}$	$I_{FSM}$	1000	mA
Power Dissipation	$P_D$	350	mW
Operating and Storage			
Junction Temperature	$T_J, T_{stg}$	-65 to +150	$^\circ\text{C}$
Thermal Resistance	$\theta_{JA}$	357	$^\circ\text{C/W}$

**ELECTRICAL CHARACTERISTICS PER DIODE:** ( $T_A=25^\circ\text{C}$  unless otherwise noted)

SYMBOL	TEST CONDITIONS	MIN	MAX	UNITS
$I_R$	$V_R=25\text{V}, T_A=150^\circ\text{C}$		30	$\mu\text{A}$
$I_R$	$V_R=75\text{V}$		1.0	$\mu\text{A}$
$I_R$	$V_R=75\text{V}, T_A=150^\circ\text{C}$		50	$\mu\text{A}$
$BV_R$	$I_R=100\mu\text{A}$	85		V
$V_F$	$I_F=1.0\text{mA}$		715	mV
$V_F$	$I_F=10\text{mA}$		855	mV
$V_F$	$I_F=50\text{mA}$		1.00	V
$V_F$	$I_F=150\text{mA}$		1.25	V
$C_T$	$V_R=0, f=1.0 \text{MHz}$		2.0	pF
$t_{rr}$	$I_F=I_R=10\text{mA}, R_L=100\Omega, \text{Rec. to } 1.0\text{mA}$		6.0	ns

R1 (20-February 2003)

SOT-143 CASE - MECHANICAL OUTLINE



**LEAD CODE:**

- 1) ANODE D1
- 2) ANODE D2
- 3) CATHODE D2
- 4) CATHODE D1

SYMBOL	DIMENSIONS		DIMENSIONS	
	INCHES		MILLIMETERS	
	MIN	MAX	MIN	MAX
A	0.004	0.005	0.10	0.13
B	0.006	-	0.15	-
C	0.003	0.005	0.08	0.13
D	0.037	0.043	0.94	1.09
E	0.110	0.118	2.79	3.00
F	0.079		2.01	
G	-	0.098	-	2.49
H	0.047	0.051	1.19	1.30
J	0.014	0.018	0.36	0.46
K	0.030	0.033	0.76	0.84
L	0.071		1.80	

SOT-143 (REV: R1)

**MARKING CODE: CJSS**

R1 (20-February 2003)