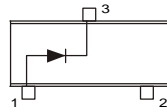
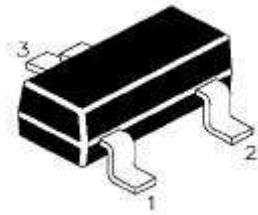


SILICON EXPITAXIAL PLANAR SWITCHING DIODE

BAS16W

**SOT-323
PLASTIC PACKAGE**



Pin Configuration
 1 = ANODE
 2 = NC
 3 = CATHODE

Marking

BAS16W = A6

High Switching Diode

ABSOLUTE MAXIMUM RATINGS

DESCRIPTION	SYMBOL	VALUE	UNIT
Continuous Reverse Voltage	V_R	75	V
Repetitive Peak Reverse Voltage	V_{RRM}	85	V
Forward Current (Continuous)	$*I_F$	175	mA
Repetitive Peak Forward Voltage	I_{FRM}	500	mA
Non Repetitive Peak Forward Current, square wave $T_j=25^\circ\text{C}$ prior to surge			
$t=1\mu\text{s}$	I_{FSM}	4.0	A
$t=1\text{ms}$	I_{FSM}	1.0	A
$t=1\text{s}$	I_{FSM}	0.5	A
Power Dissipation at $T_{amb}=25^\circ\text{C}$	$*P_{tot}$	200	mW
Junction Temperature	T_j	150	$^\circ\text{C}$
Storage Temperature Range	T_{stg}	- 65 to +150	$^\circ\text{C}$

THERMAL RESISTANCE

Junction to tie point	$R_{th(j-tp)}$	300	K/W
Junction to Ambient in free air	$*R_{th(j-a)}$	625	K/W

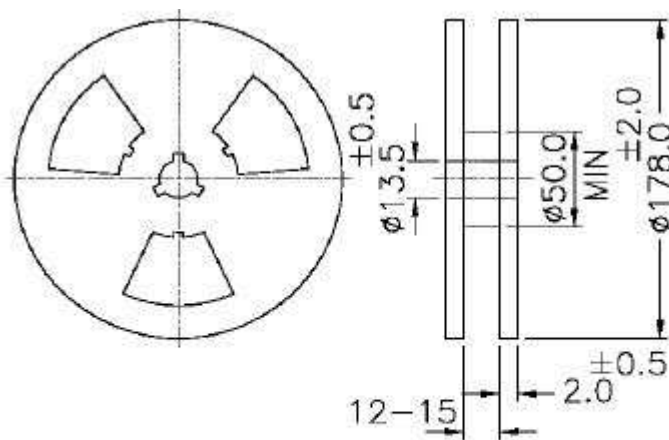
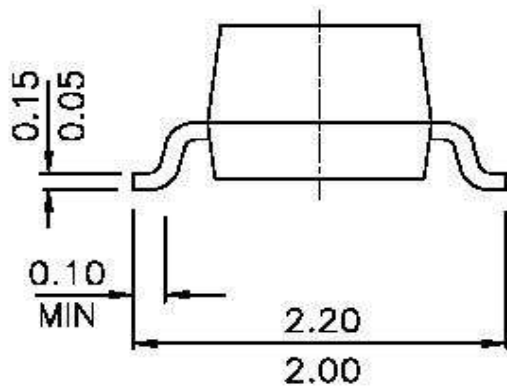
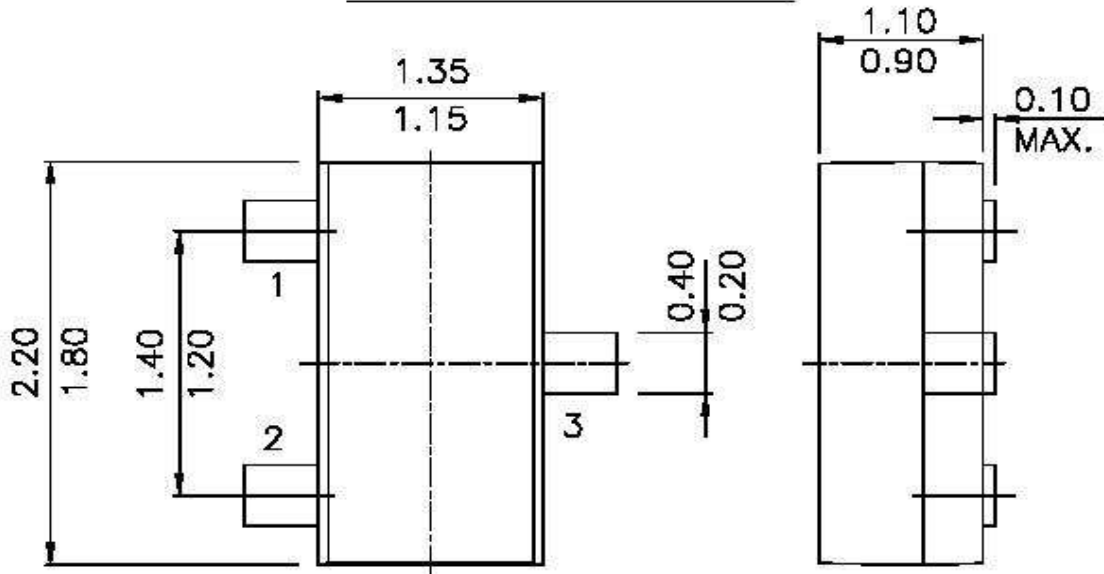
*Device mounted on an FR4 printed circuit board

ELECTRICAL CHARACTERISTICS ($T_j=25^\circ\text{C}$ unless specified otherwise)

DESCRIPTION	SYMBOL	TEST CONDITION	MIN	TYP	MAX	UNIT
Forward Voltage	V_F	$I_F=1\text{mA}$			0.715	V
		$I_F=10\text{mA}$			0.855	V
		$I_F=50\text{mA}$			1.0	V
		$I_F=150\text{mA}$			1.25	V
Reverse Voltage Leakage Current	I_R	$V_R=25\text{V}$			30	nA
		$V_R=75\text{V}$			1.0	μA
		$V_R=25\text{V}, T_j=150^\circ\text{C}$			30	μA
		$V_R=75\text{V}, T_j=150^\circ\text{C}$			50	μA
Diode Capacitance	C_d	$V_R=0\text{V}, f=1\text{MHz}$			2.0	pF
Reverse Recovery Time When Switched from	t_{rr}	$I_F=10\text{mA}$ to $I_R=60\text{mA}, R_L 100 \Omega$, Measured at $I_R=1\text{mA}$			4.0	ns
Forward Recovery Voltage	V_{fr}	when switched from $I_F=10\text{mA}$ to $t_r=20\text{ns}$			1.75	V

BAS16W Rev090206E

PACKAGE SOT-323



ALL DIMENSIONS ARE IN mm
 REEL ø 178 mm (7")
 3000 Pcs / REEL

Component Disposal Instructions

1. CDIL Semiconductor Devices are RoHS compliant, customers are requested to please dispose as per prevailing Environmental Legislation of their Country.
2. In Europe, please dispose as per EU Directive 2002/96/EC on Waste Electrical and Electronic Equipment (WEEE).

Disclaimer

The product information and the selection guides facilitate selection of the CDIL's Semiconductor Device(s) best suited for application in your product(s) as per your requirement. It is recommended that you completely review our Data Sheet(s) so as to confirm that the Device(s) meet functionality parameters for your application. The information furnished on the CDIL Web Site/CD are believed to be accurate and reliable. CDIL however, does not assume responsibility for inaccuracies or incomplete information. Furthermore, CDIL does not assume liability whatsoever, arising out of the application or use of any CDIL product; neither does it convey any license under its patent rights nor rights of others. These products are not designed for use in life saving/support appliances or systems. CDIL customers selling these products (either as individual Semiconductor Devices or incorporated in their end products), in any life saving/support appliances or systems or applications do so at their own risk and CDIL will not be responsible for any damages resulting from such sale(s).

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Continental Device India Limited

C-120 Naraina Industrial Area, New Delhi 110 028, India.

Telephone + 91-11-2579 6150, 4141 1112 Fax + 91-11-2579 5290, 4141 1119
email@cdil.com www.cdilsemi.com