# JIANGSU CHANGJIANG ELECTRONICS TECHNOLOGY CO., LTD

# SOD-123 Plastic-Encapsulate Diodes

**SOD-123**

## BAT42W/BAT43W  SCHOTTKY BARRIER DIODE

### FEATURES

- **Low Forward Voltage Drop**
- **Fast Switching Time**
- **Surface Mount Package Ideally Suited for Automatic Insertion**



**MARKING:   BAT42W S7**

**BAT43W S8**

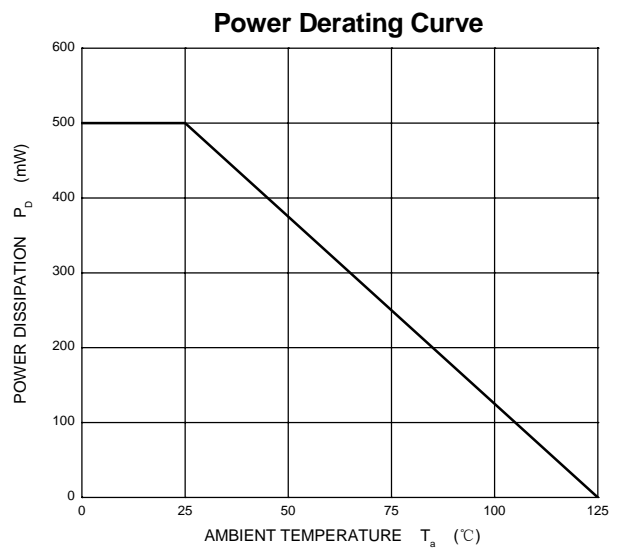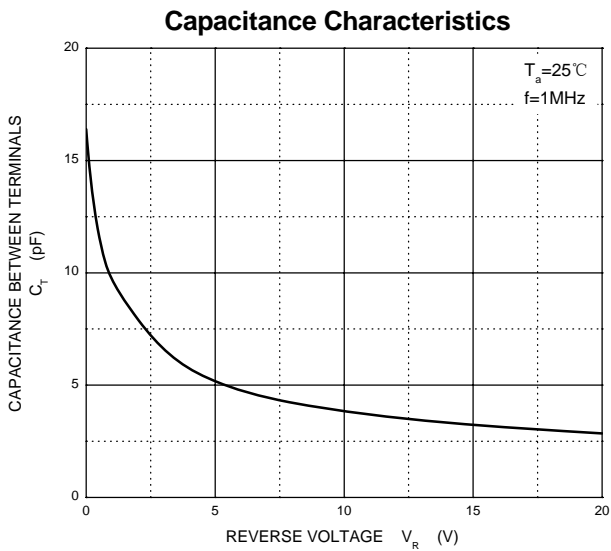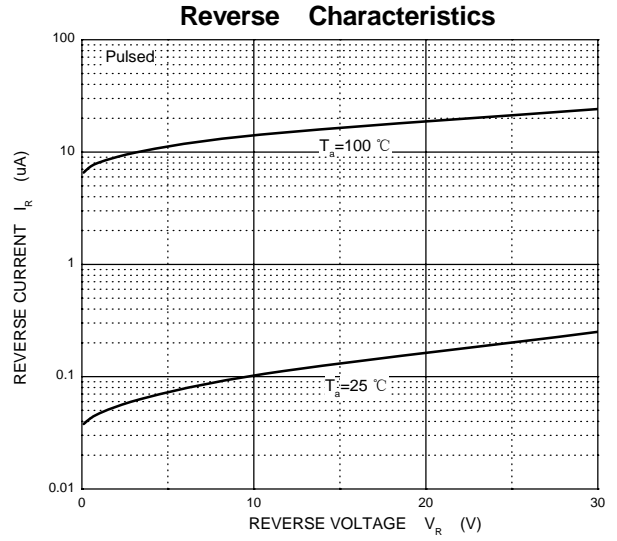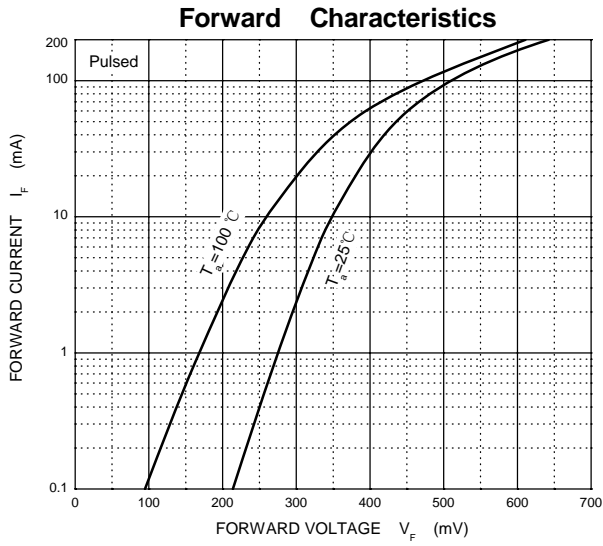**Maximum Ratings and Electrical Characteristics, Single Diode @Ta=25℃**

| Parameter | Symbol | BAT42W/BAT43W | Unit |
|---|---|---|---|
| Peak Repetitive Peak Reverse Voltage | $V_{RRM}$ | | |
| Working Peak Reverse Voltag | $V_{RWM}$ | 30 | V |
| DC Blocking  Voltage | $V_R$ | | |
| RMS Reverse Voltage | $V_{R(RMS)}$ | 21 | V |
| Forward Continuous Current | $I_{FM}$ | 200 | mA |
| Repetitive Peak Forward Current @t<1.0s | $I_{FRM}$ | 500 | mA |
| Peak Forward Surge Current @t<10ms | $I_{FSM}$ | 4.0 | A |
| Power Dissipation | $P_D$ | 500 | mW |
| Thermal Resistance Junction to Ambient | $R_{\theta JA}$ | 200 | /W |
| Junction temperature | $T_J$ | 125 | ℃ |
| Storage Temperature | $T_{STG}$ | -55~+150 | ℃ |

**Electrical Ratings @Ta=25℃**

| Parameter | | Symbol | Min | Typ | Max | Unit | Conditions |
|---|---|---|---|---|---|---|---|
| Reverse breakdown voltage | | $V_{(BR)}$ | 30 | | | V | $I_R=10\mu A$ |
| Forward voltage | All Types | $V_F$ | | | 1.0 | V | $I_F=200mA$ |
| | BAT42W | $V_F$ | | | 0.4 | V | $I_F=10mA$ |
| | BAT42W | $V_F$ | | | 0.65 | V | $I_F=50mA$ |
| | BAT43W | $V_F$ | 0.26 | | 0.33 | V | $I_F=2mA$ |
| | BAT43W | $V_F$ | | | 0.45 | V | $I_F=15mA$ |
| Reverse current | | $I_R$ | | | 0.5 | μA | $V_R=25V$ |
| Capacitance between terminals | | $C_T$ | | | 10 | pF | $V_R=1.0V, f=1.0MHz$ |
| Reverse recovery time | | $t_{rr}$ | | | 5 | ns | $I_F=I_R=10mA$<br>$Irr=0.1XI_R, R_L=100\Omega$ |

# Typical Characteristics    BAT42W

### Forward    Characteristics

Pulsed

FORWARD CURRENT $I_F$ (mA)

$T_a=100\ ^\circ C$
$T_a=25\ ^\circ C$

FORWARD VOLTAGE $V_F$ (mV)

### Reverse    Characteristics

Pulsed

REVERSE CURRENT $I_R$ (uA)

$T_a=100\ ^\circ C$
$T_a=25\ ^\circ C$

REVERSE VOLTAGE $V_R$ (V)

### Capacitance Characteristics

$T_a=25^\circ C$
f=1MHz

CAPACITANCE BETWEEN TERMINALS $C_T$ (pF)

REVERSE VOLTAGE $V_R$ (V)

### Power Derating Curve

POWER DISSIPATION $P_D$ (mW)

AMBIENT TEMPERATURE $T_a$ ($^\circ C$)

# X-ON Electronics

Largest Supplier of Electrical and Electronic Components

*Click to view similar products for* Schottky Diodes & Rectifiers *category:*

*Click to view products by* Changjiang *manufacturer:*

Other Similar products are found below :

CUS06(TE85L,Q,M)  MA4E2039  D1FH3-5063  MBR0530L-TP  MBR10100CT-BP  MBR30H100MFST1G  MMBD301M3T5G  PMAD1103-LF  PMAD1108-LF  RB160M-50TR  RB520S-30  RB551V-30  DD350N18K  DZ435N40K  DZ600N16K  BAS16E6433HTMA1  BAS 3010S-02LRH E6327  BAT 54-02LRH E6327  IDL02G65C5XUMA1  NSR05F40QNXT5G  NSVR05F40NXT5G  JANS1N6640  SB07-03C-TB-H  SB1003M3-TL-W  SBAT54CWT1G  SBM30-03-TR-E  SBS818-TL-E  SK32A-LTP  SK33A-TP  SK34A-TP  SK34B-TP  SMD1200PL-TP  ACDBN160-HF  SS3003CH-TL-E  STPS30S45CW  PDS3100Q-7  GA01SHT18  CRS10I30A(TE85L,QM  MBR1240MFST1G  MBRB30H30CT-1G  BAS28E6433HTMA1  BAS 70-02L E6327  HSB123JTR-E  JANTX1N5712-1  VS-STPS40L45CW-N3  DD350N12K  SB007-03C-TB-E  SB10015M-TL-E  SB1003M3-TL-E  SK110-LTP