

# SCHOTTKY BARRIER RECTIFIERS



## 150/200 mW SCHOTTKY/DO-35

OPERATING/STORAGE TEMPERATURE RANGE -65°C to +125°C

| Type Number | Max. Power Dissipation @ 25°C (mW) | Max. Junction Temp (°C) | Max. Fwd. Voltage Drop |               |                    |               | Max. Reverse Current             |              | Capacitance<br>$V_F=V_R=0$<br>$f=1\text{MHz}$<br>pF (TYP) |
|-------------|------------------------------------|-------------------------|------------------------|---------------|--------------------|---------------|----------------------------------|--------------|-----------------------------------------------------------|
|             |                                    |                         | $V_F @ I_F$<br>(V)     | $I_F$<br>(ma) | $V_F @ I_F$<br>(V) | $I_F$<br>(ma) | $I_R @ V_R$<br>( $\mu\text{A}$ ) | $V_R$<br>(V) |                                                           |
| BAT 42      | 200                                | 125                     | 0.4                    | 10            | 0.65               | 50            | 0.5                              | 25           | 10                                                        |
| BAT 43      | 200                                | 125                     | 0.33                   | 2             | 0.45               | 15            | 0.5                              | 25           | 10                                                        |
| BAT 46      | 150                                | 125                     | 0.45                   | 10            | 1.0                | 250           | 5.0                              | 75           | 10                                                        |

OPERATING/STORAGE TEMPERATURE RANGE -65°C to +150°C

| TYPE | Maximum Peak Reverse Voltage | Maximum Average Rectified Current @ Half-Wave Resistive Load 60Hz |    | Maximum Forward Peak Surge Current @ 8.3ms Superimposed | Maximum Reverse Current @ PRV @ 25°C $T_A$ | Maximum Forward Voltage @ 25°C $T_A$ |          |
|------|------------------------------|-------------------------------------------------------------------|----|---------------------------------------------------------|--------------------------------------------|--------------------------------------|----------|
|      | PRV                          | $I_O @ T_L^*$                                                     |    | $I_{FM}$ (Surge)                                        | $I_R$                                      | $I_{FM}$                             | $V_{FM}$ |
|      | $V_{PK}$                     | $A_{AV}$                                                          | °C | $A_{PK}$                                                | mAdc                                       | $A_{PK}$                             | $V_{PK}$ |

$T_L^*$  Lead Temp. @ 3/8" From Body

## 400mW SCHOTTKY/DO-35

OPERATING/STORAGE TEMPERATURE RANGE -55°C to +200°C

|        |    |                                                                                                           |     |                               |       |      |
|--------|----|-----------------------------------------------------------------------------------------------------------|-----|-------------------------------|-------|------|
| SD101A | 60 | Power Dissipation = 400 mW at 25°C Terminal Temperature Measured At Device Body. Derate 4mw/°C Above 25°C | 2** | 200nA @ $V_R = 50V$           | 15mA  | 1.0  |
| SD101B | 50 |                                                                                                           | 2** | 200nA @ $V_R = 40V$           | 15mA  | 0.95 |
| SD101C | 40 |                                                                                                           | 2** | 200nA @ $V_R = 30V$           | 15mA  | 0.90 |
| SD103A | 40 |                                                                                                           | 15  | 5 $\mu\text{A}$ @ $V_R = 30V$ | 200mA | 0.60 |
| SD103B | 30 |                                                                                                           | 15  | 5 $\mu\text{A}$ @ $V_R = 20V$ | 200mA | 0.60 |
| SD103C | 20 |                                                                                                           | 15  | 5 $\mu\text{A}$ @ $V_R = 10V$ | 200mA | 0.60 |
| 1N5711 | 70 |                                                                                                           | 2** | 200nA @ $V_R = 50V$           | 15mA  | 1.0  |
| 1N6263 | 60 |                                                                                                           | 2** | 200nA @ $V_R = 50V$           | 15mA  | 1.0  |

\*\*10  $\mu\text{SEC}$  Square Wave

## 1.0 AMPERE SCHOTTKY/DO-41

|        |    |     |     |    |     |     |      |
|--------|----|-----|-----|----|-----|-----|------|
| 1N5817 | 20 | 1.0 | 90  | 30 | 1.0 | 1.0 | 0.45 |
| 1N5818 | 30 | 1.0 | 90  | 30 | 1.0 | 1.0 | 0.55 |
| 1N5819 | 40 | 1.0 | 90  | 30 | 1.0 | 1.0 | 0.60 |
| SR105  | 50 | 1.0 | 100 | 30 | 1.0 | 1.0 | 0.70 |
| SR106  | 60 | 1.0 | 100 | 30 | 1.0 | 1.0 | 0.70 |

## 3.0 AMPERE SCHOTTKY/DO-201AD

|        |    |     |     |    |     |     |       |
|--------|----|-----|-----|----|-----|-----|-------|
| 1N5820 | 20 | 3.0 | 95  | 80 | 2.0 | 3.0 | 0.475 |
| 1N5821 | 30 | 3.0 | 95  | 80 | 2.0 | 3.0 | 0.500 |
| 1N5822 | 40 | 3.0 | 95  | 80 | 2.0 | 3.0 | 0.525 |
| SR305  | 50 | 3.0 | 100 | 80 | 1.0 | 3.0 | 0.720 |
| SR306  | 60 | 3.0 | 100 | 80 | 1.0 | 3.0 | 0.720 |

## 5.0 AMPERE SCHOTTKY/DO-201AD

|       |    |     |     |     |     |     |     |
|-------|----|-----|-----|-----|-----|-----|-----|
| SR502 | 20 | 5.0 | 90  | 150 | 1.0 | 5.0 | .55 |
| SR503 | 30 | 5.0 | 90  | 150 | 1.0 | 5.0 | .55 |
| SR504 | 40 | 5.0 | 90  | 150 | 1.0 | 5.0 | .55 |
| SR505 | 50 | 5.0 | 100 | 150 | 1.0 | 5.0 | .67 |
| SR506 | 60 | 5.0 | 100 | 150 | 1.0 | 5.0 | .67 |

## 8.0 AMPERE SCHOTTKY/DO-201AD

|       |    |     |    |     |     |     |      |
|-------|----|-----|----|-----|-----|-----|------|
| SD830 | 30 | 8.0 | 90 | 175 | 1.0 | 8.0 | 0.55 |
| SD840 | 40 | 8.0 | 90 | 175 | 1.0 | 8.0 | 0.55 |
| SD845 | 45 | 8.0 | 90 | 175 | 1.0 | 8.0 | 0.55 |