



勝特力材料 886-3-5753170  
 勝特力电子(上海) 86-21-54151736  
 勝特力电子(深圳) 86-755-83298787  
[Http://www.100y.com.tw](http://www.100y.com.tw)

AR(S)3501  
 THRU  
 AR(S)3507

## AUTOMOTIVE SILICON RECTIFIERS TYPE 35A

### Features

High Surge Capability  
 High Current Capability  
 Types up to 1000V  $V_{RRM}$   
 Silicon junction

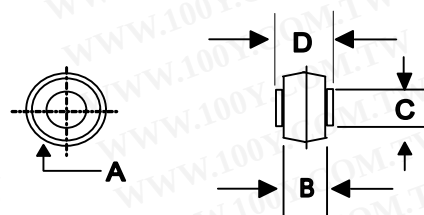
35Amp  
 BUTTON DIODE  
 50-1000 Volts

### Maximum Ratings

Operating Temperature:  $-50^{\circ}\text{C}$  to  $+190^{\circ}\text{C}$   
 Storage Temperature:  $-50^{\circ}\text{C}$  to  $+190^{\circ}\text{C}$

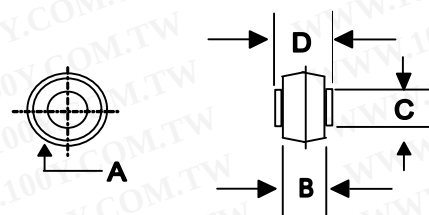
| Part Number | Maximum Recurrent Peak Reverse Voltage | Maximum RMS Voltage | Maximum DC Blocking Voltage | Marking |
|-------------|----------------------------------------|---------------------|-----------------------------|---------|
| AR(S)3501   | 50V                                    | 35V                 | 50V                         | White   |
| AR(S)3502   | 100V                                   | 70V                 | 100V                        | Yellow  |
| AR(S)3503   | 200V                                   | 140V                | 200V                        | Blue    |
| AR(S)3504   | 400V                                   | 280V                | 400V                        | Silive  |
| AR(S)3505   | 600V                                   | 420V                | 600V                        | Red     |
| AR(S)3506   | 800V                                   | 560V                | 800V                        | Green   |
| AR(S)3507   | 1000V                                  | 700V                | 1000V                       | Brown   |

BUTTON-AR



| DIMENSIONS |        |      |      |      |      |
|------------|--------|------|------|------|------|
| DIM        | INCHES |      | MM   |      | NOTE |
|            | MIN    | MAX  | MIN  | MAX  |      |
| A          | .380   | .410 | 9.7  | 10.4 |      |
| B          | .165   | .185 | 4.20 | 4.70 |      |
| C          | .215   | .225 | 5.50 | 5.70 |      |
| D          | .235   | .250 | 6.00 | 6.40 |      |

BUTTON-ARS



| DIMENSIONS |        |      |      |      |      |
|------------|--------|------|------|------|------|
| DIM        | INCHES |      | MM   |      | NOTE |
|            | MIN    | MAX  | MIN  | MAX  |      |
| A          | .327   | .347 | 8.30 | 8.90 |      |
| B          | .165   | .185 | 4.20 | 4.70 |      |
| C          | .215   | .225 | 5.50 | 5.70 |      |
| D          | .235   | .250 | 6.00 | 6.40 |      |

### Electrical Characteristics @ $25^{\circ}\text{C}$ Unless Otherwise Specified

|                                                                       |                 |                                       |                                                           |
|-----------------------------------------------------------------------|-----------------|---------------------------------------|-----------------------------------------------------------|
| Average Forward Current                                               | $I_{F(AV)}$     | 35 A                                  | $T_C = 150^{\circ}\text{C}$                               |
| Peak Forward Surge Current                                            | $I_{FSM}$       | 600A                                  | 8.3ms, Halfsine                                           |
| Maximum Instantaneous Forward Voltage *                               | $V_F$           | 1.0V                                  | $I_{FM} = 35A$ ;<br>$T_J = 25^{\circ}\text{C}$            |
| Maximum Instantaneous DC Reverse Current At Rated DC Blocking Voltage | $I_R$           | 10 $\mu\text{A}$<br>500 $\mu\text{A}$ | $T_J = 25^{\circ}\text{C}$<br>$T_J = 150^{\circ}\text{C}$ |
| Maximum thermal resistance, junction to Ambient                       | $R_{\theta JA}$ | 1.0 $^{\circ}\text{C}/\text{W}$       |                                                           |
| Typical Junction Capacitance                                          | $C_j$           | 300pF                                 | Measured at<br>1.0MHz,<br>$V_R = 4.0V$                    |

\*Pulse Test: Pulse Width 300 usec, Duty Cycle 2%



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## AR(S)3501 THRU AR(S)3507

FIG.1- MAXIMUM FORWARD CURRENT DERATING CURVE

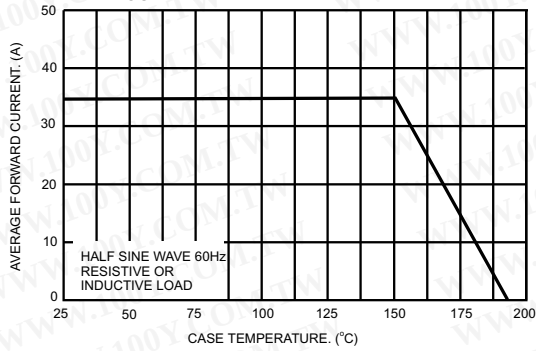


FIG.2- MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

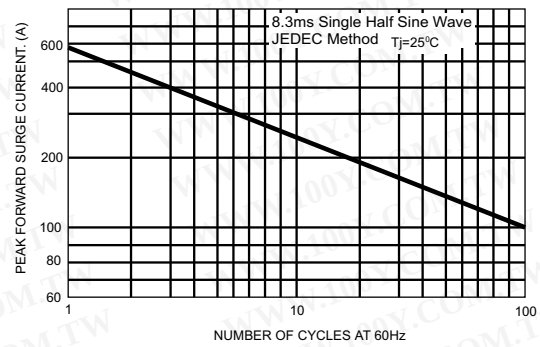


FIG.3- TYPICAL FORWARD CHARACTERISTICS

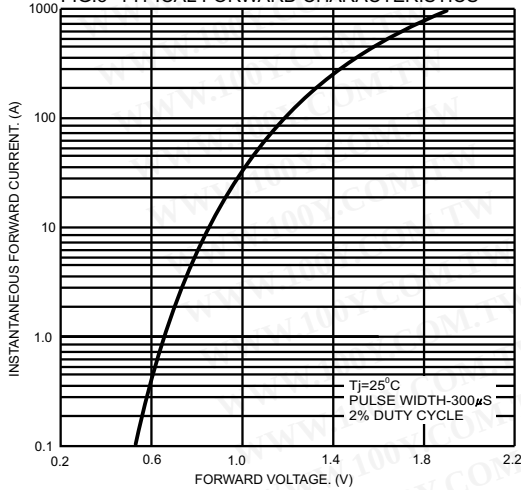


FIG.4- TYPICAL REVERSE CHARACTERISTICS

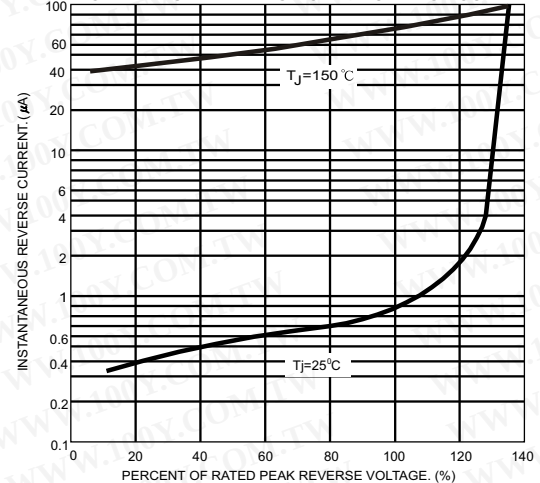


FIG.5- TYPICAL JUNCTION CAPACITANCE

