



## RB420DS

### Features

- Lead Free Finish/RoHS Compliant ("P" Suffix designates RoHS Compliant. See ordering information)
- Small surface mounting type
- Low reverse current and low forward voltage
- High reliability
- Halogen free available upon request by adding suffix "-HF"
- Marking: D3B / A2

### Maximum Ratings

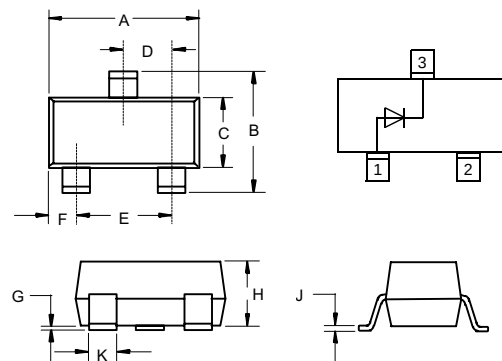
| Parameter                  | Symbol    | Value      | Unit |
|----------------------------|-----------|------------|------|
| Peak Reverse Voltage       | $V_{RM}$  | 40         | V    |
| DC Reverse Voltage         | $V_R$     | 40         | V    |
| Mean Rectifying Current    | $I_O$     | 100        | mA   |
| Peak Forward Surge Current | $I_{FSM}$ | 1          | A    |
| Junction Temperature       | $T_J$     | 125        | °C   |
| Storage Temperature        | $T_{STG}$ | -40 to 125 | °C   |

### Electrical Characteristics @ 25°C Unless Otherwise Specified

| Parameter                                               | Symbol | Min. | Typ. | Max. | Unit |
|---------------------------------------------------------|--------|------|------|------|------|
| Forward Voltage<br>@ $I_F=10mA$                         | $V_F$  | ---  | ---  | 0.45 | V    |
| Reverse Current<br>@ $V_R=10V$                          | $I_R$  | ---  | ---  | 1    | uA   |
| Capacitance<br>Between Terminals<br>@ $V_R=10V, f=1MHz$ | $C_T$  | ---  | 6    | ---  | pF   |

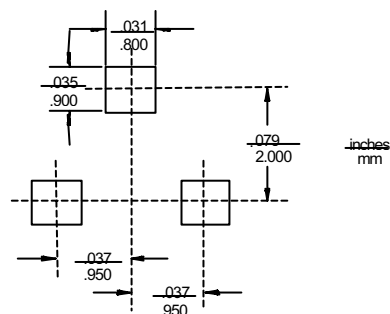
## 0.1 Amp Schottky Barrier Rectifier 40 Volts

### SOT-23



| DIMENSIONS |        |       |      |      |      |
|------------|--------|-------|------|------|------|
| DIM        | INCHES |       | MM   |      | NOTE |
|            | MIN    | MAX   | MIN  | MAX  |      |
| A          | .110   | .120  | 2.80 | 3.04 |      |
| B          | .083   | .104  | 2.10 | 2.64 |      |
| C          | .047   | .055  | 1.20 | 1.40 |      |
| D          | .035   | .041  | .89  | 1.03 |      |
| E          | .070   | .081  | 1.78 | 2.05 |      |
| F          | .018   | .024  | .45  | .60  |      |
| G          | .0005  | .0039 | .013 | .100 |      |
| H          | .035   | .044  | .89  | 1.12 |      |
| J          | .003   | .007  | .085 | .180 |      |
| K          | .015   | .020  | .37  | .51  |      |

### Suggested Solder Pad Layout



# RB420DS

## Typical Characteristics

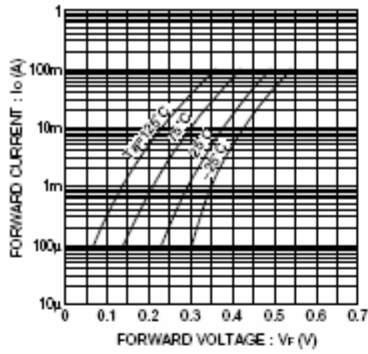


Fig.1 Forward characteristics

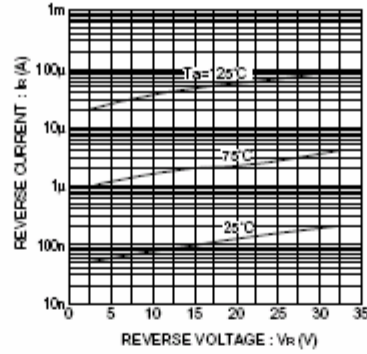


Fig.2 Reverse characteristics

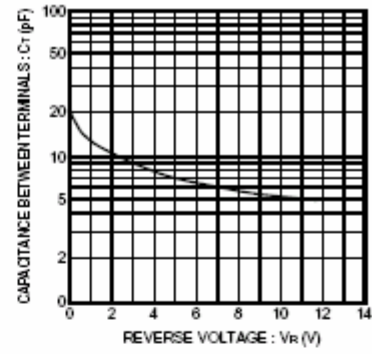


Fig.3 Capacitance between terminals characteristics

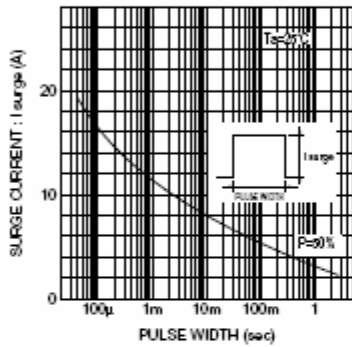


Fig.4 Surge current characteristics

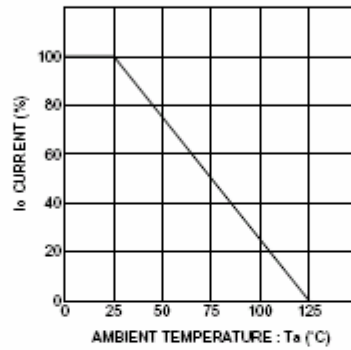


Fig.5 Derating curve  
(mounting on glass epoxy PCBs)

## Ordering Information :

| Device         | Packing               |
|----------------|-----------------------|
| Part Number-TP | Tape&Reel: 3Kpcs/Reel |

Note : Adding "-HF" suffix for halogen free, eg. Part Number-TP-HF

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