Elektronische Bauelemente

# D10SB10 ~ D10SB100

**100 V ~ 1000 V**

**10.0 Amp High Current Glass Passivated Molding Single-Phase Bridge Rectifier**

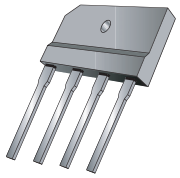
RoHS Compliant Product

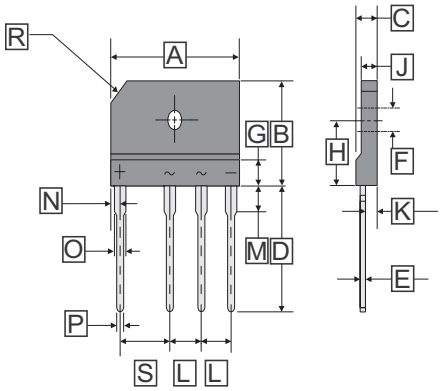
A suffix of "-C" specifies halogen-free and RoHS Compliant

**D5-25SB**

## FEATURES

- Plastic Package has Underwriters Laboratory Flammability Classification 94V-0
- This Series is UL listed under the Recognized Component index, file number E231047
- Single-in-line package
- High current capacity with small package
- Superior thermal conductivity
- High temperature soldering guaranted：260°C / 10 seconds
- High IFSM






| REF. | Millimeter | | REF. | Millimeter | |
|---|---|---|---|---|---|
| | Min. | Max. | | Min. | Max. |
| A | 29.7 | 30.3 | K | 2.6 | 2.8 |
| B | 19.7 | 20.3 | L | 7.3 | 7.7 |
| C | 4.4 | 4.8 | N | 2.3 | 2.7 |
| D | 17.0 | 18.0 | P | 0.9 | 1.1 |
| E | 0.6 | 0.8 | O | 2.0 | 2.4 |
| G | 5 REF. | | R | 3 X 45° | |
| J | 3.4 | 3.8 | S | 9.8 | 10.2 |
| F | 3.3 | 3.7 | H | 10.8 | 11.2 |

## MAXIMUM RATINGS ($T_A$=25℃ unless otherwise noted)

| PARAMETERS | | SYMBOL | PART NUMBERS | | | | | | UNITS |
|---|---|---|---|---|---|---|---|---|---|
| | | | D10SB 10 | D10SB 20 | D10SB 40 | D10SB 60 | D10SB 80 | D10SB 100 | |
| | | | RBV 1002S | RBV 803S | RBV 804S | RBV 805S | RBV 806S | RBV 1007S | |
| Maximum repetitive voltage | | $V_{RM}$ | 100 | 200 | 400 | 600 | 800 | 1000 | V |
| Maximum DC reverse current at rated DC blocking voltage | @$T_A$=25°C | $I_R$ | 10 | | | | | | μA |
| | @$T_A$=125°C | | 500 | | | | | | |
| Average rectified forward current 60Hz Sine wave Resistance load | @$T_C$=100°C | $I_O$ | 10 (1) | | | | | | A |
| | @$T_A$=25°C | | 3.4 (2) | | | | | | |
| Peak Forward Surge Current 10ms single half sine-wave superimposed on rated load | | $I_{FSM}$ | 200 | | | | | | A |
| Maximum Instantaneous Forward Voltage @ 3.0A | | $V_F$ | 1.1 | | | | | | V |
| Dielectric strength terminals to case, AC 1 minute Current 1mA | | Vdia | 2.5 | | | | | | KV |
| Maximum thermal Resistance per leg | on P.C.B without heat-sink | $R_{\theta JA}$ | 22 (2) | | | | | | °C / W |
| | on Al plate heat-sink | $R_{\theta JC}$ | 3.4 (1) | | | | | | |
| Operating and Storage Temperature Range | | $T_J$ , $T_{STG}$ | 150 , -40 ~ 150 | | | | | | °C |
| Mounting torque | | Tor | Rating Torque：0.8N.m | | | | | | N.m |

Notes：
(1) Unit case mounted on Al plate heat-sink
(2) Unites mounted on P.C.B. without heat-sink
(3) Recommended mounting position is to bolt down on heatsink with silicone thermal compound for maximum heat transfer with #6 screw {heat-sink size：10.5 * 8.2 * 0.3cm}

## CHARACTERISTIC CURVES

**Fig. 1 derating Curve**

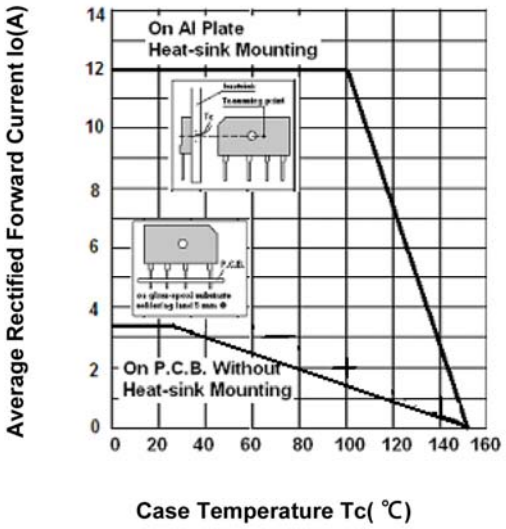



**Fig.3 Peak Surge Forward capability**

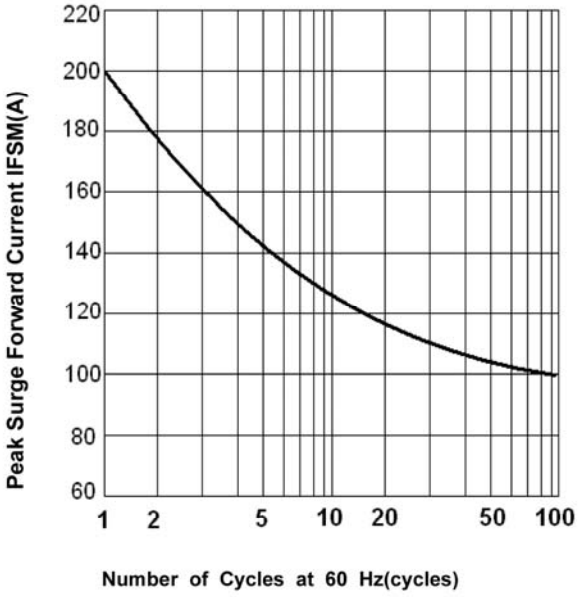



**Fig.2 Typical Reverse Characteristics**

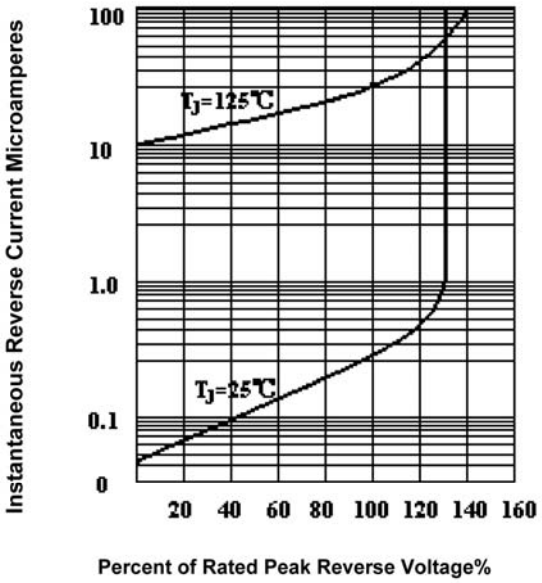



**Fig.4 Forward Voltage**