Elektronische Bauelemente

# D3SB10 ~ D3SB100

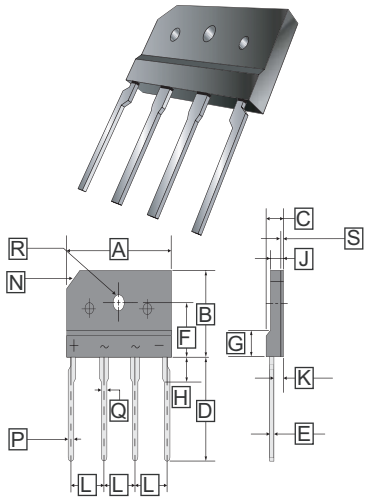
**100 V ~ 1000 V**

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

RoHS Compliant Product

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

**D3-4SB**




| REF. | Millimeter | | REF. | Millimeter | |
|---|---|---|---|---|---|
| | Min. | Max. | | Min. | Max. |
| A | 24.7 | 25.3 | K | 2.50 | 2.90 |
| B | 14.7 | 15.3 | L | 7.30 | 7.70 |
| C | 4.58 | 4.62 | N | 3 X 45° | |
| D | 17.0 | 18.0 | P | 0.90 | 1.10 |
| E | 0.50 | 0.90 | Q | 1.50 REF. | |
| G | 4.50 REF. | | R | 3.00 | 3.40 |
| J | 3.50 | 3.90 | S | 0.8 | 1.2 |
| F | 9.3 | 9.7 | H | 3.0 | 4.0 |

## FEATURES

- Plastic Package has Underwriters Laboratory Flammability Classification 94V-0
- High current capacity with small package
- Glass passivated chip junctions
- Superior thermal conductivity
- High IFSM

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

| PARAMETERS | | SYMBOL | PART NUMBERS | | | | | | UNITS |
|---|---|---|---|---|---|---|---|---|---|
| | | | D3SB 10 | D3SB 20 | D3SB 40 | D3SB 60 | D3SB 80 | D3SB 100 | |
| Maximum repetitive voltage | | $V_{RRM}$ | 100 | 200 | 400 | 600 | 800 | 1000 | V |
| Maximum RMS voltage | | $V_{RMS}$ | 70 | 140 | 280 | 420 | 560 | 700 | V |
| Maximum DC blocking voltage | | $V_{DC}$ | 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 | | | | | | |
| Maximun average forward rectified output current at | With heatsink $T_C$=100°C | $I_O$ | 4.0 | | | | | | A |
| | Without heatsink $T_A$=40°C | | 2.3 | | | | | | |
| Peak Forward Surge Current 8.3ms single half sine-wave superimposed on rated load | | $I_{FSM}$ | 150 | | | | | | A |
| Rating of fusing (t < 8.3ms) | | I2t | 93 | | | | | | A2sec |
| Maximum Instantaneous Forward Voltage @ 2.0A | | $V_F$ | 1.1 | | | | | | V |
| Dielectric strength terminals to case, AC 1 minute Current 1mA | | Vdia | 2.5 | | | | | | KV |
| Maximum thermal on P.C.B without heat-sink | | $R_{\theta JA}$ | 26 | | | | | | °C / W |
| Resistance per leg on Al plate heat-sink | | $R_{\theta JC}$ | 4.2 | | | | | | |
| Operating and Storage Temperature Range | | $T_J$ , $T_{STG}$ | 150 , -55 ~ 150 | | | | | | °C |
| Mounting torque | | Tor | Rating Torque：0.8 | | | | | | N.m |

## CHARACTERISTIC CURVES

Fig. 1 Derating Curve

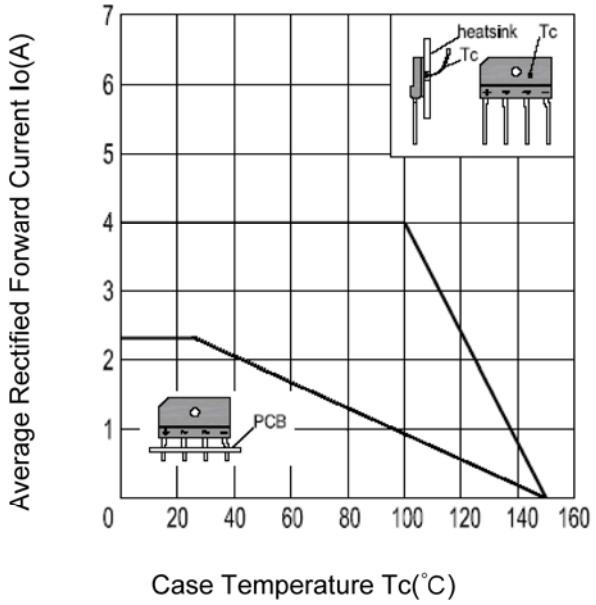



Fig.2 Typical Reverse Characteristics

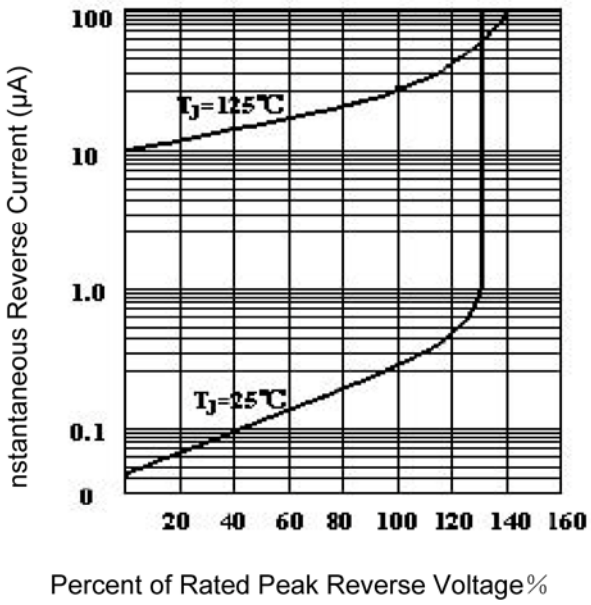



Fig.3 Forward Voltage

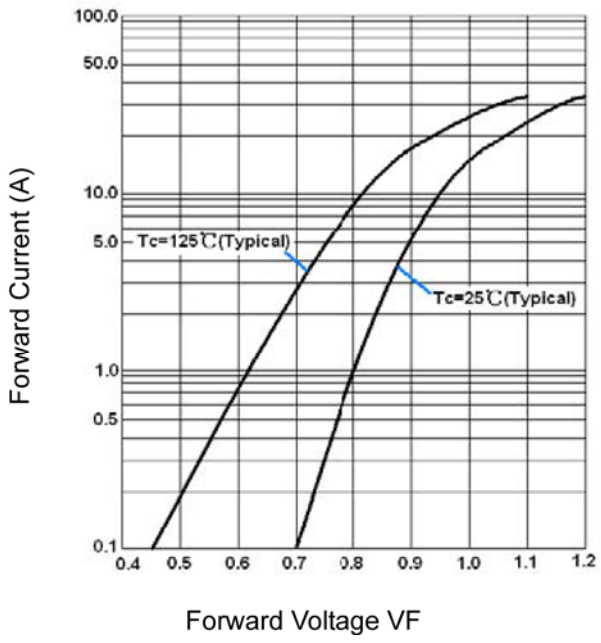



Fig.4 Peak Surge Forward Capability

