

SWITCHING TYPE POWER SUPPLY APPLICATIONS.

### FEATURES

- Low Profile Surface Mount Package.
- Low Power Loss, High Efficiency.
- For Use in Low Voltage, High Frequency inverters, Free Wheeling, and Polarity Protection Applications.

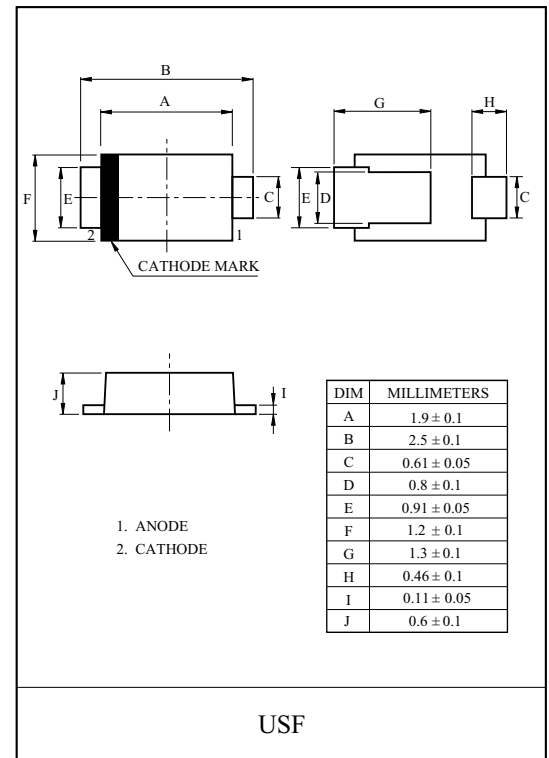
### APPLICATION

- Switching Power Supply.
- Reversed Battery Connection Protection.
- DC/DC Converter.
- Cellular Phones.

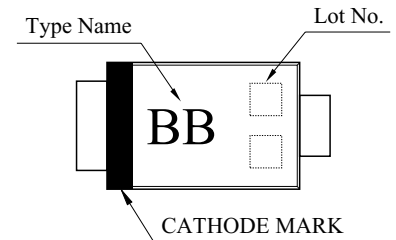
### MAXIMUM RATING (Ta=25 °C)

| CHARACTERISTIC   | SYMBOL    | RATING    | UNIT |
|--|-----------|-----------|------|
| Maximum Repetitive Peak Reverse Voltage                    | $V_{RRM}$ | 30        | V    |
| Average Output Rectified Current                           | $I_O$     | 1         | A    |
| Peak One Cycle Surge Forward Current (Non-Repetitive 60Hz) | $I_{FSM}$ | 22        | A    |
| Power Dissipation  | $P_D$ *   | 667       | mW   |
| Junction Temperature                                       | $T_j$     | -40 ~ 125 | °C   |
| Storage Temperature Range                                  | $T_{stg}$ | -40 ~ 125 | °C   |

\* Mounted on a glass epoxy board (Soldering land : 6mm × 6mm)



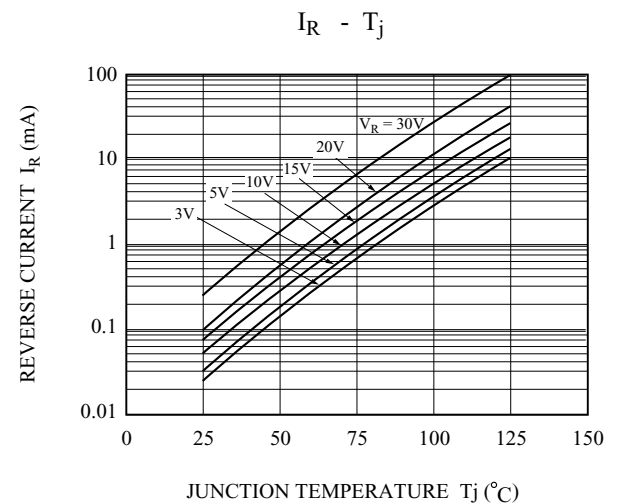
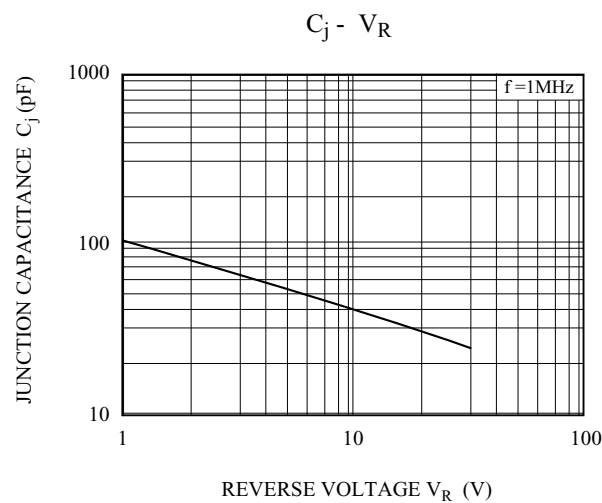
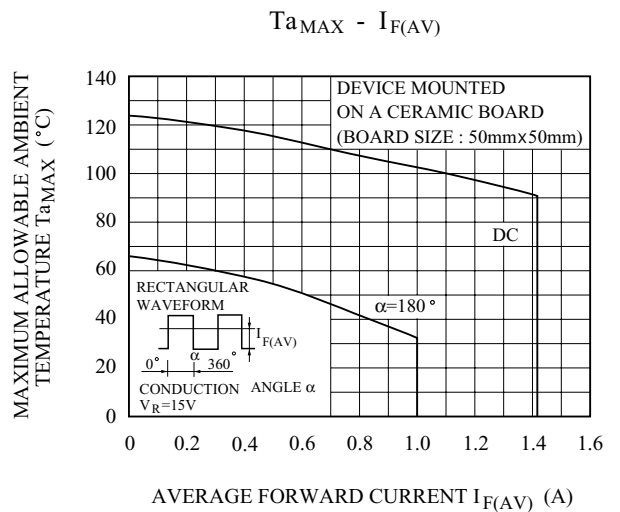
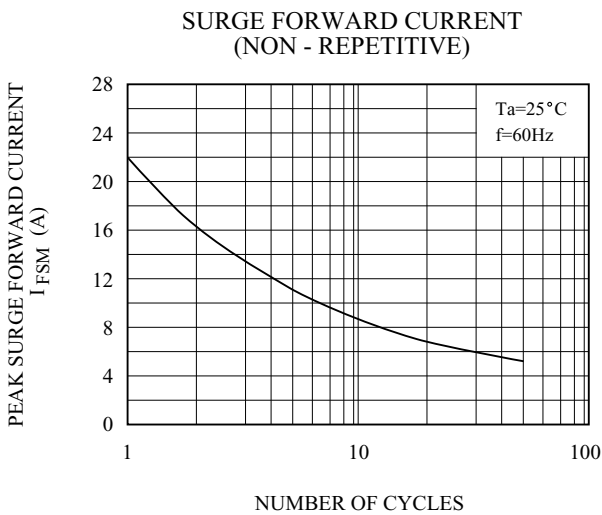
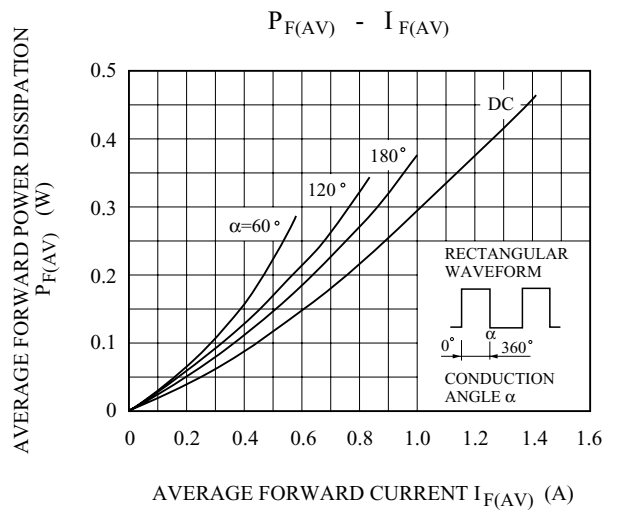
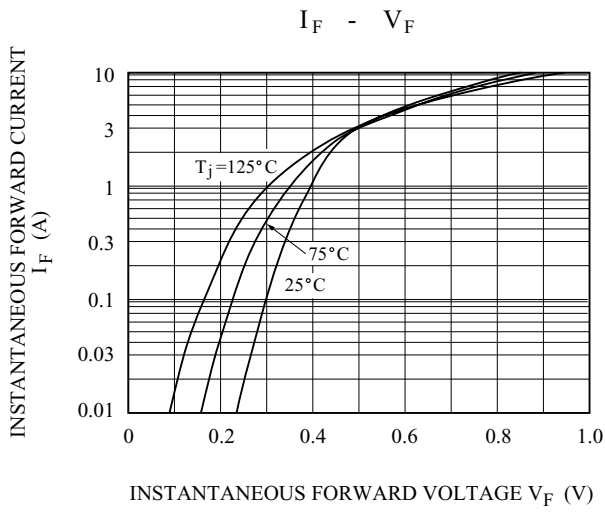
### Marking



### ELECTRICAL CHARACTERISTICS (Ta=25 °C)

| CHARACTERISTIC                  | SYMBOL       | TEST CONDITION      | MIN. | TYP. | MAX. | UNIT |
|---------------------------------|--------------|---------------------|------|------|------|------|
| Peak Forward Voltage            | $V_{FM(1)}$  | $I_{FM}=0.1A$       | -    | 0.25 | -    | V    |
|                                 | $V_{FM(2)}$  | $I_{FM}=0.7A$       | -    | 0.33 | 0.37 |      |
|                                 | $V_{FM(3)}$  | $I_{FM}=1.0A$       | -    | 0.39 | -    |      |
| Repetitive Peak Reverse Current | $I_{RRM(1)}$ | $V_{RRM}=5V$        | -    | 50   | -    | μA   |
|                                 | $I_{RRM(2)}$ | $V_{RRM}=30V$       | -    | 0.5  | 1    | mA   |
| Junction Capacitance            | $C_j$        | $V_R=10V, f=1.0MHz$ | -    | 40   | -    | pF   |

# USFB13L



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