

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.

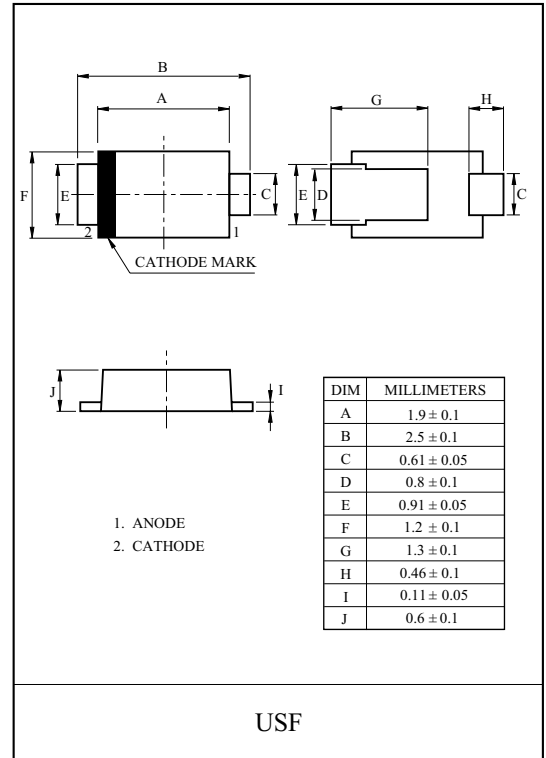
APPLICATION

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

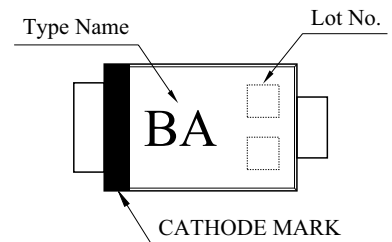
MAXIMUM RATING (Ta=25 °C)

| 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^* | 830 | mW |
| Junction Temperature | T_j | -40 125 | |
| Storage Temperature Range | T_{stg} | -40 125 | |

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



Marking

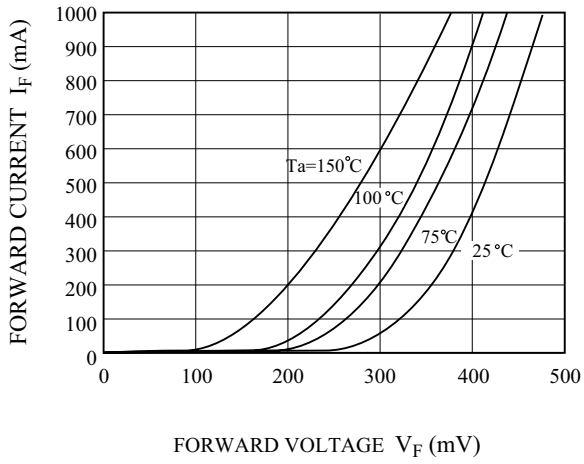


ELECTRICAL CHARACTERISTICS (Ta=25 °C)

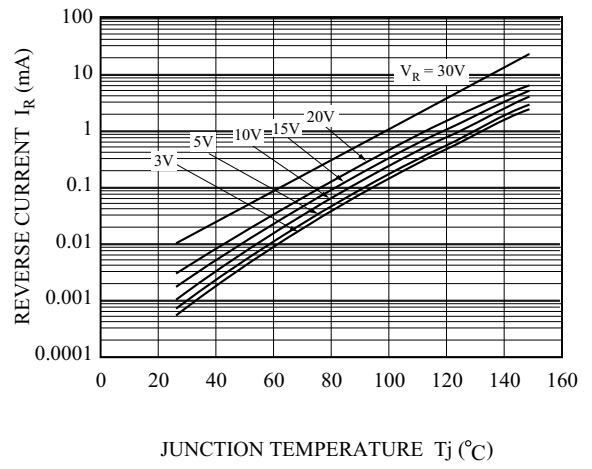
| CHARACTERISTIC | SYMBOL | TEST CONDITION | MIN. | TYP. | MAX. | UNIT |
|---------------------------------|-----------|---------------------|------|------|------|------|
| Peak Forward Voltage | V_{FM} | $I_{FM}=0.7A$ | - | - | 0.45 | V |
| | | $I_{FM}=1.0A$ | - | - | 0.52 | V |
| Repetitive Peak Reverse Current | I_{RRM} | $V_{RRM}=30V$ | - | 5 | 50 | μA |
| Junction Capacitance | C_j | $V_R=10V, f=1.0MHz$ | - | 40 | - | pF |

USFB13A

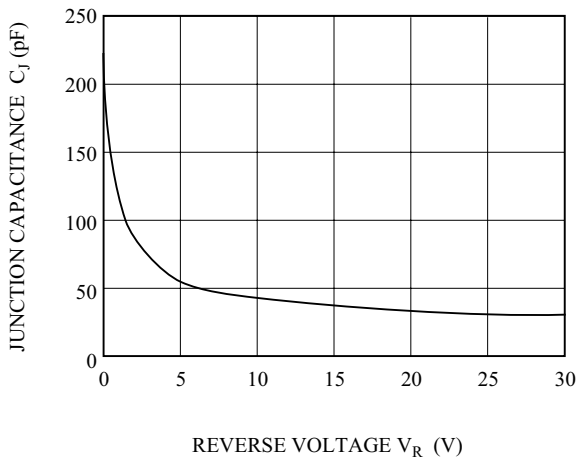
$I_F - V_F$



$I_R - T_j$



$C_J - V_R$



$R_{th(j-a)} - t$

