

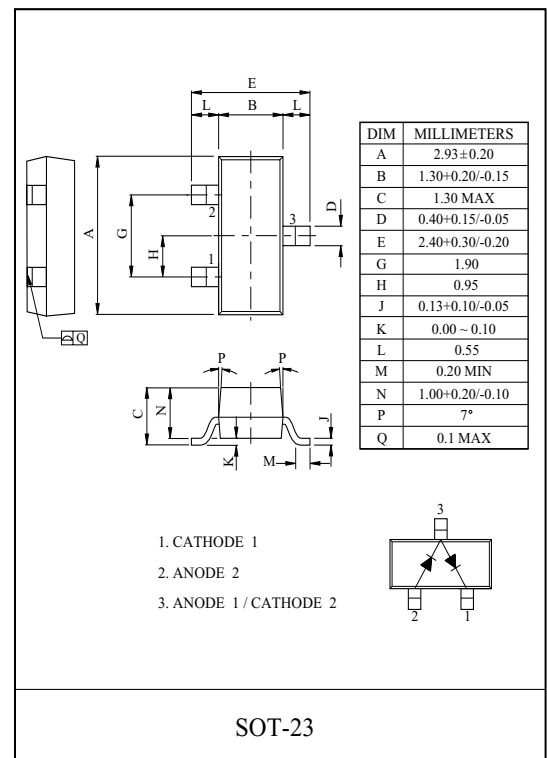
HIGH SPEED RECTIFICATION
(SWITCHING REGULATORS, CONVERTERS, CHOPPERS)
UNIVERSAL-USE RECTIFIERS.

FEATURES

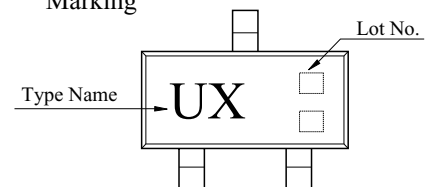
- Low Forward Voltage : $V_F \text{ max}=0.55\text{V}$
- Fast reverse recovery time ($t_{rr} \text{ max}=10\text{nS}$)
- Low switching noise.
- Low leakage current and high reliability due to Highly reliable planar structure.
- Series connection of 2 elements in an SOT-23 package facilitates high-density mounting and permits KDR731S applied equipment to be made smaller.

MAXIMUM RATING ($T_a=25^\circ\text{C}$)

| CHARACTERISTIC | SYMBOL | RATING | UNIT |
|---|-----------|---------|------|
| Repetitive (Peak) Reverse Voltage | V_{RRM} | 30 | V |
| Non-Repetitive (Peak) Reverse Surge Voltage | V_{RSM} | 35 | V |
| Average Forward Current | I_O | 70 | mA |
| Surge Forward Current | I_{FSM} | 2 | A |
| Junction Temperature | T_j | 125 | |
| Storage Temperature Range | T_{stg} | -55 125 | |



Marking

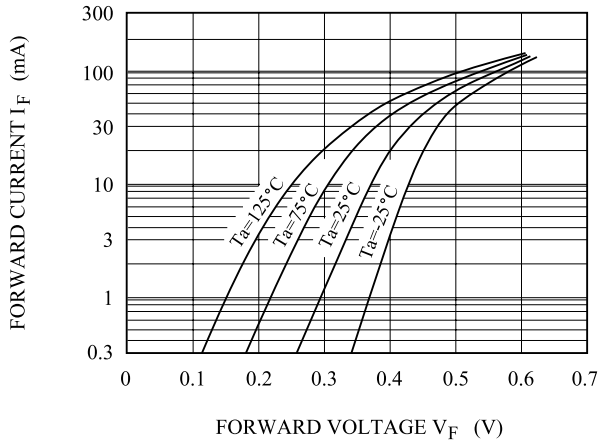


ELECTRICAL CHARACTERISTICS ($T_a=25^\circ\text{C}$)

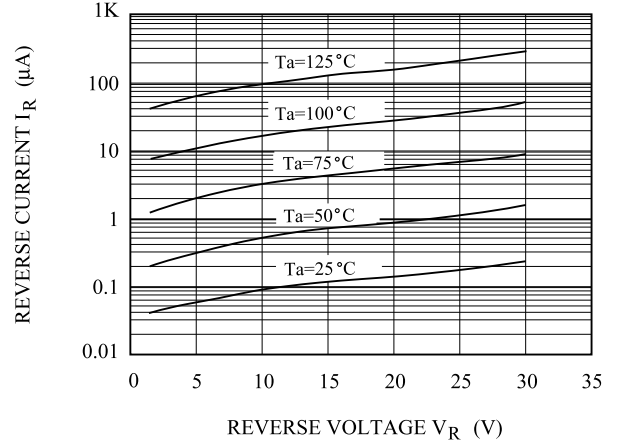
| CHARACTERISTIC | SYMBOL | TEST CONDITION | MIN. | TYP. | MAX. | UNIT |
|-----------------------|----------|---------------------------------|------|------|------|---------------|
| Reverse Voltage | V_R | $I_R=20\ \mu\text{A}$ | 30 | - | - | V |
| Forward Voltage | V_F | $I_F=70\text{mA}$ | - | - | 0.55 | V |
| Reverse Current | I_R | $V_R=15\text{V}$ | - | - | 5 | μA |
| Total Capacitance | C_T | $V_R=10\text{V}, f=1\text{MHz}$ | - | 5.0 | - | pF |
| Reverse Recovery Time | t_{rr} | $I_R=I_F=10\text{mA}$ | - | - | 10 | nS |

KDR731S

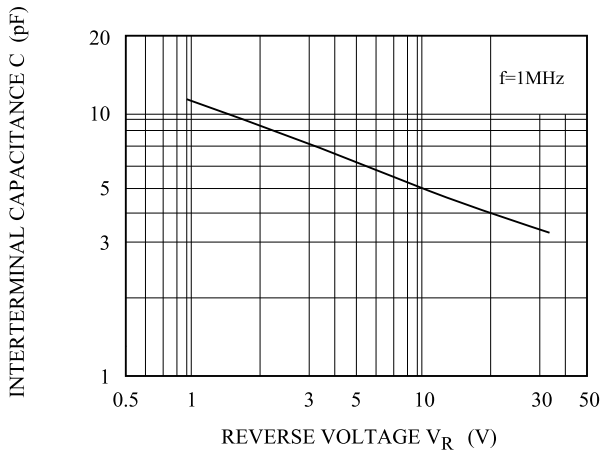
$I_F - V_F$



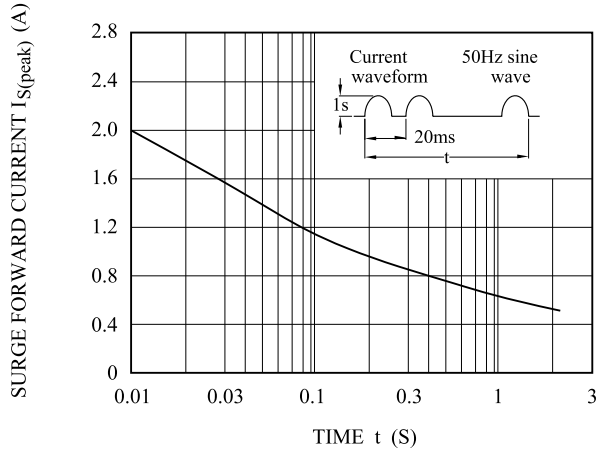
$I_R - V_R$



$C - V_R$



$I_S - t$



t_{rr} TEST CIRCUIT

Duty $\leq 10\%$

