

RJU4351SDPE

430V - 10A - Single Diode
Ultra Fast Recovery Diode

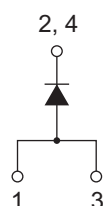
R07DS1063EJ0200
Rev.2.00
Apr 26, 2013

Features

- Ultra fast reverse recovery time: $t_{rr} = 23 \text{ ns typ.}$ (at $I_F = 10 \text{ A}$, $di/dt = 100 \text{ A}/\mu\text{s}$)
- Low forward voltage: $V_F = 1.6 \text{ V typ.}$ (at $I_F = 10 \text{ A}$)
- Low reverse current: $I_R = 1 \mu\text{A max.}$ (at $V_R = 430 \text{ V}$)

Outline

RENESAS Package code: PRSS0004AE-B
(Package name: LDKPAK (S)-(1))



1. Anode
2. Cathode
3. Anode
4. Cathode

Absolute Maximum Ratings

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

| Item | Symbol | Ratings | Unit |
|-------------------------------------|---------------------------|-------------|---------------------------|
| Maximum reverse voltage | V_{RM} | 430 | V |
| Continuous forward current | $T_c = 25^\circ\text{C}$ | I_F | 10 A |
| | $T_c = 100^\circ\text{C}$ | I_F | 4 A |
| Peak surge forward current | I_{FSM} | 50 | A |
| Junction to case thermal resistance | θ_{j-cd} | 2.13 | $^\circ\text{C}/\text{W}$ |
| Junction temperature | T_j | 150 | $^\circ\text{C}$ |
| Storage temperature | T_{stg} | -55 to +150 | $^\circ\text{C}$ |

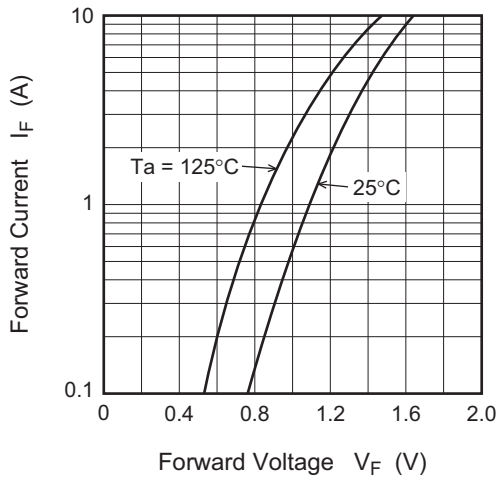
Electrical Characteristics

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

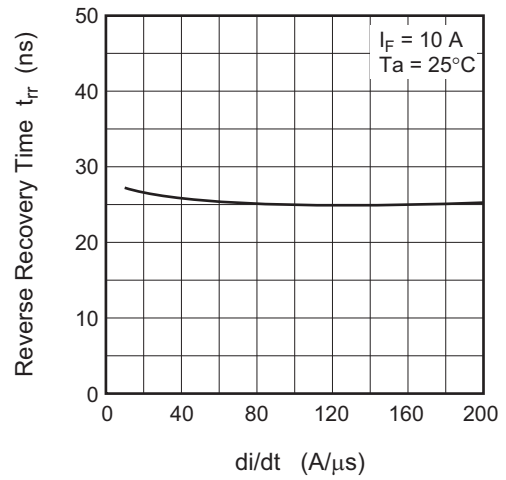
| Item | Symbol | Min | Typ | Max | Unit | Test conditions |
|-----------------------|----------|-----|-----|-----|---------------|--|
| Forward Voltage | V_F | — | 1.6 | 1.9 | V | $I_F = 10 \text{ A}$ |
| Reverse current | I_R | — | — | 1 | μA | $V_R = 430 \text{ V}$ |
| Reverse Recovery Time | t_{rr} | — | 25 | — | ns | $I_F = 10 \text{ A}$, $di/dt = 100 \text{ A}/\mu\text{s}$ |

Main Characteristics

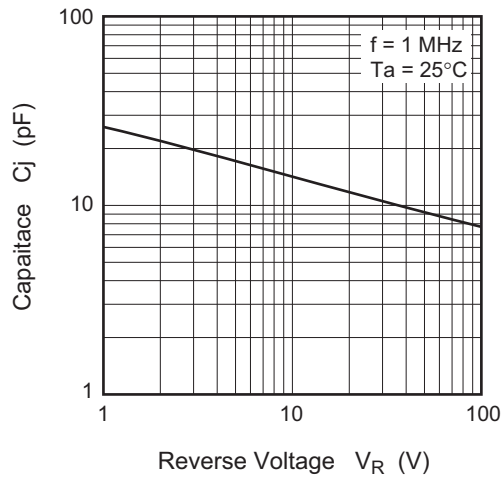
Forward Current vs. Forward Voltage (Typical)



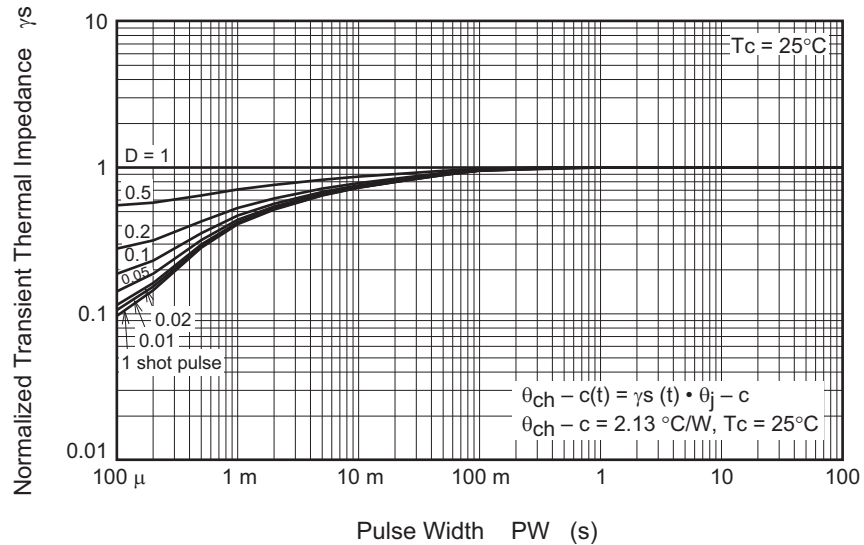
Reverse Recovery Time vs. di/dt (Typical)



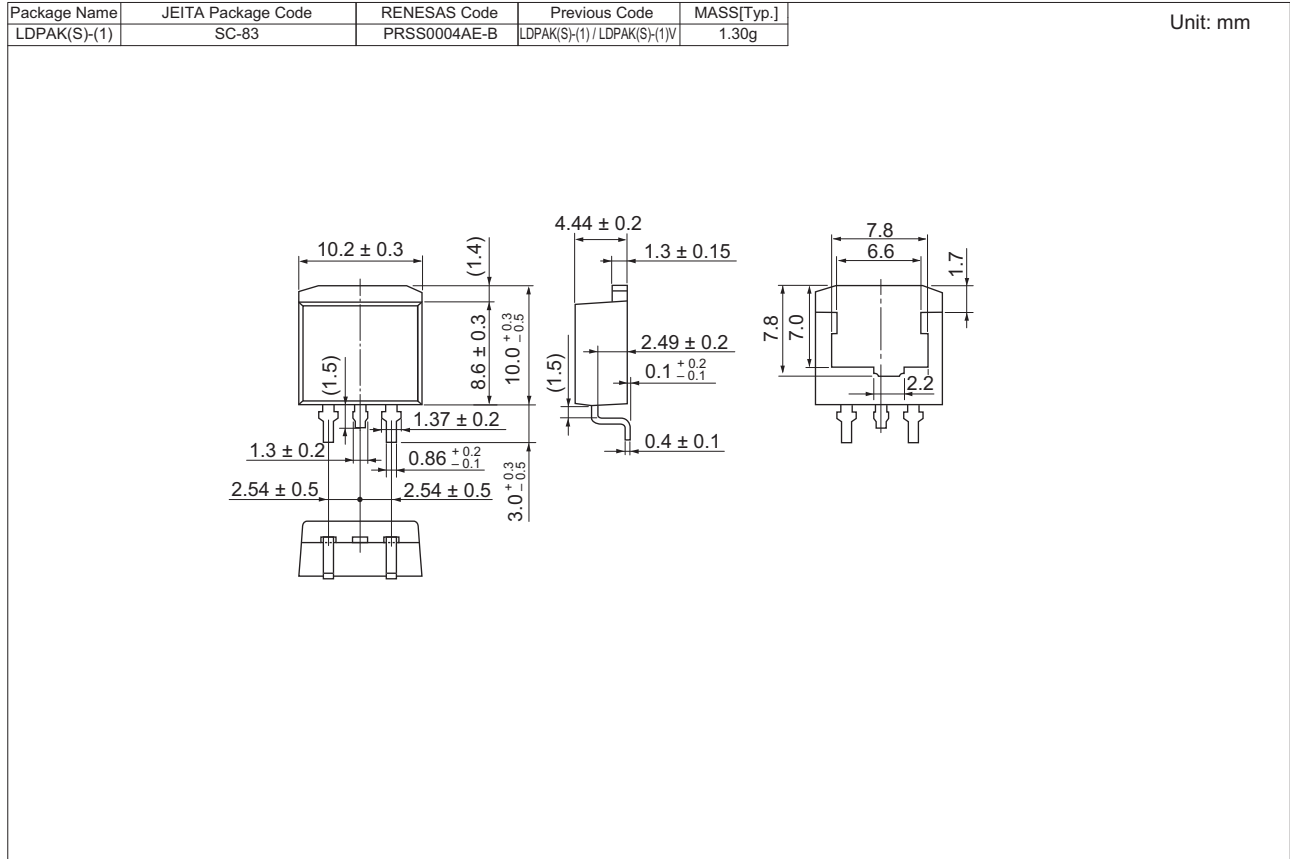
Capacitance vs. Reverse Voltage (Typical)



Normalized Transient Thermal Impedance vs. Pulse Width



Package Dimensions



Ordering Information

| Orderable Part Number | Quantity | Shipping Container |
|-----------------------|----------|--------------------|
| RJU4351SDPE-00#J3 | 1000 pcs | Taping |

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