

RJU36B1WDPF

360V - 20A - Dual Diode
Ultra Fast Recovery Diode

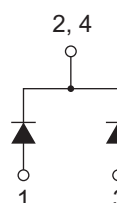
R07DS1135EJ0300
Rev.3.00
Dec 06, 2013

Features

- Ultra fast reverse recovery time: $t_{rr} = 40$ ns typ. (at $I_F = 10$ A, $di/dt = 100$ A/ μ s)
- Low forward voltage: $V_F = 1.1$ V typ. (at $I_F = 10$ A)
- Low reverse current: $I_R = 1$ μ A max. (at $V_R = 360$ V)

Outline

RENESAS Package code: PRSS0004AE-C
(Package name: LDK (S)-(2))



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} | 360 | V | |
| Continuous forward current | $T_c = 25^\circ\text{C}$ | I_F^{Note1} | 10/20 | A |
| | $T_c = 100^\circ\text{C}$ | I_F^{Note1} | 5/10 | A |
| Peak surge forward current | I_{FSM}^{Note1} | 40/80 | A | |
| Junction to case thermal resistance | θ_{j-cd} | 4.17 | $^\circ\text{C}/\text{W}$ | |
| Junction temperature | T_J^{Note2} | 175 | $^\circ\text{C}$ | |
| Storage temperature | T_{stg} | -55 to +150 | $^\circ\text{C}$ | |

Notes: 1. Per leg/device

2. Please use this device in the thermal conditions where the junction temperature does not exceed 175°C . IGBT Application Note is disclosed about reliability test and application condition up to $T_J=175^\circ\text{C}$.

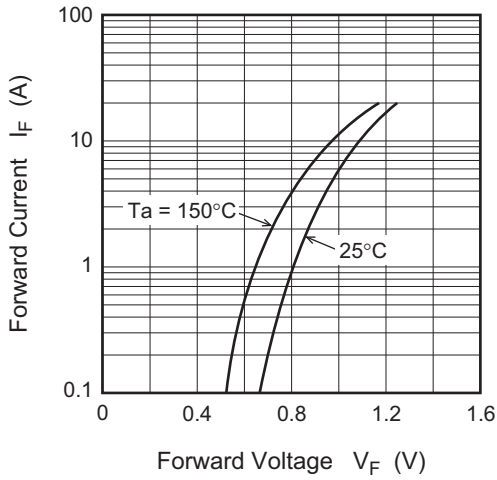
Electrical Characteristics

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

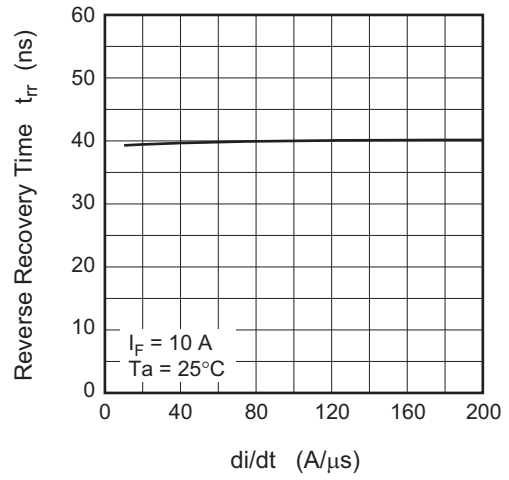
| Item | Symbol | Min | Typ | Max | Unit | Test conditions |
|-----------------------|-------------------------|-----|-----|-----|---------------|--|
| Forward voltage | V_F^{Note1} | — | 1.1 | 1.5 | V | $I_F = 10$ A |
| Reverse current | I_R^{Note1} | — | — | 1 | μA | $V_R = 360$ V |
| Reverse recovery time | t_{rr}^{Note1} | — | 40 | — | ns | $I_F = 10$ A, $di/dt = 100$ A/ μ s |

Main Characteristics

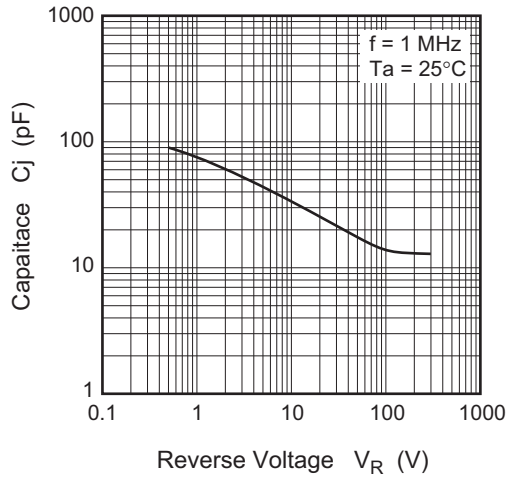
Forward Current vs. Forward Voltage (Typical)



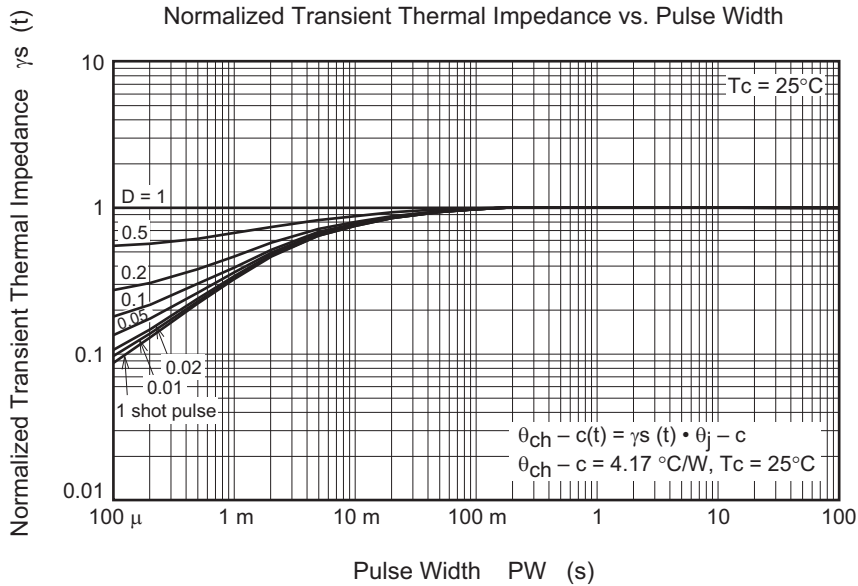
Reverse Recovery Time vs. di/dt (Typical)



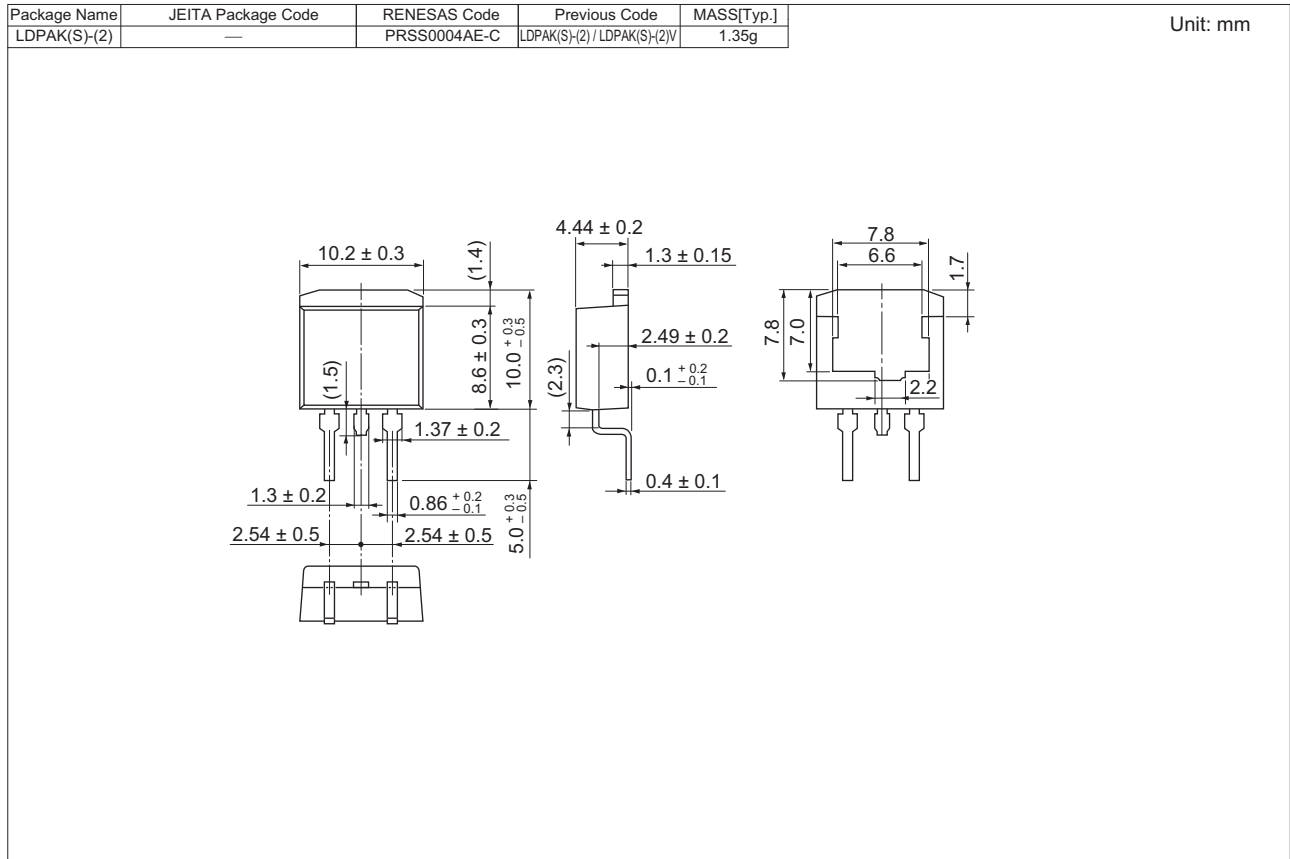
Capacitance vs. Reverse Voltage (Typical)



Normalized Transient Thermal Impedance vs. Pulse Width



Package Dimensions



Ordering Information

| Orderable Part No. | Quantity | Shipping Container |
|--------------------|----------|--------------------|
| RJU36B1WDPF-00#J3 | 1000 pcs | Taping |

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