

YG961S6R (Ip 8A)

(Ip 8A / 600V)

Super LLD (For PFC circuit)

LOW LOSS SUPER HIGH SPEED RECTIFIER

■ Features

- Insulated package by fully molding
- Super high speed switching
- High reliability by planer design

■ Applications

- PFC circuit (current continuous node)

■ Maximum ratings and characteristics

- Absolute maximum ratings

| Item | Symbol | Conditions | Rating | Unit |
|-------------------------------------|-----------|---|-------------|------------|
| Repetitive peak reverse voltage | V_{RRM} | | 600 | V |
| Non-Repetitive peak reverse voltage | V_{RSM} | | 600 | V |
| Isolatin voltage | V_{ISO} | Terminals-to-Case, AC.1min | 1500 | V |
| Surge peak forward current | I_{PS} | $t_w \leq 200ns$ | 12 | A |
| Peak forward current | I_P | | 8 | A |
| Average output current | I_o | duty=1/2, $T_c=80^\circ C$ Square wave | 2.5 | A |
| Non-Repetitive surge current | I_{FSM} | Sine wave 10ms, 1shot | 15 | A |
| Operating junction temperature | T_j | | 150 | $^\circ C$ |
| Storage temperature | T_{stg} | | -40 to +150 | $^\circ C$ |

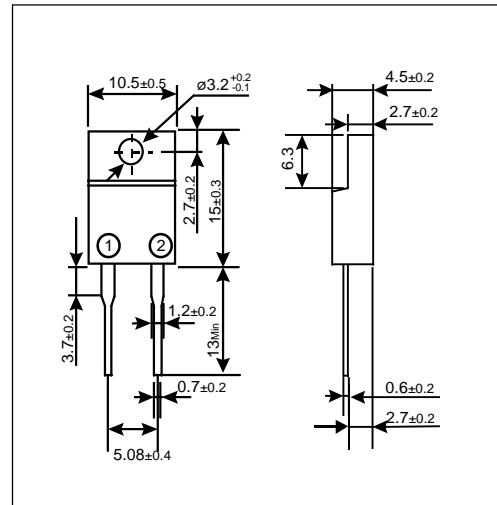
- Electrical characteristics ($T_a=25^\circ C$ Unless otherwise specified)

| Item | Symbol | Conditions | Characteristics | Unit |
|-------------------------------|---------------|--|-----------------|--------------|
| Reverse recovery peak current | I_{RP} | $I_F=5A, -di/dt=200A/\mu s, V_R=380V, T_j=100^\circ C$ | Typ. 1.9 | A |
| Reverse recovery time | t_{rr} | $I_F=0.1A, I_R=0.2A, I_{rec}=0.05A$ | Max. 23.0 | ns |
| Forward voltage | V_F | $I_F=8A$ | Max. 5.0 | V |
| Reverse current | I_R | $V_R=V_{RRM}$ | Max. 50.0 | μA |
| Thermal resistance | $R_{th(j-c)}$ | Junction to case | Max. 10.0 | $^\circ C/W$ |

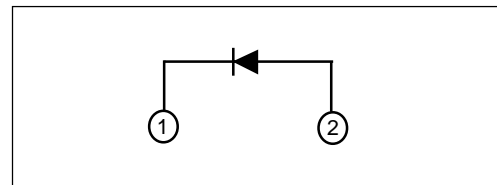
- Mechanical characteristics

| | | | |
|------------------|--------------------|------------|-----|
| Mounting torque | Recommended torque | 0.3 to 0.5 | N·m |
| Approximate mass | | 2.0 | g |

■ Outline drawings, mm

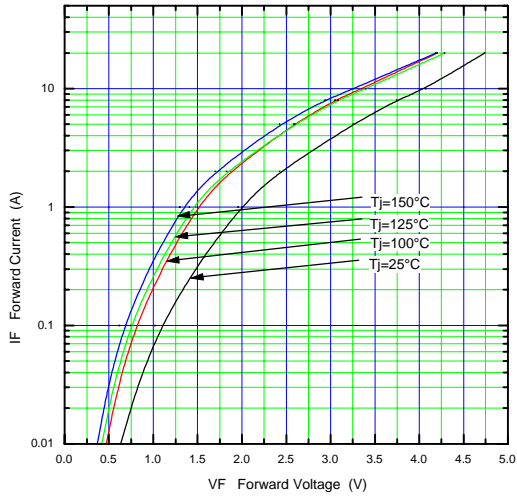


■ Connection diagram

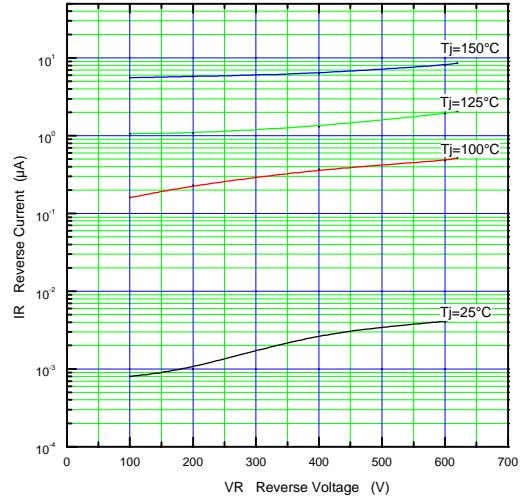


Characteristics

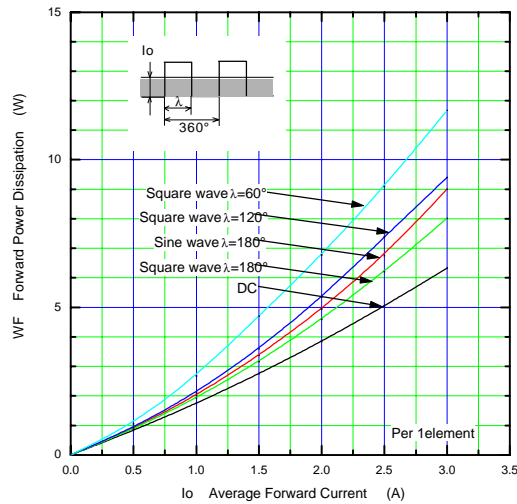
Forward Characteristic (typ.)



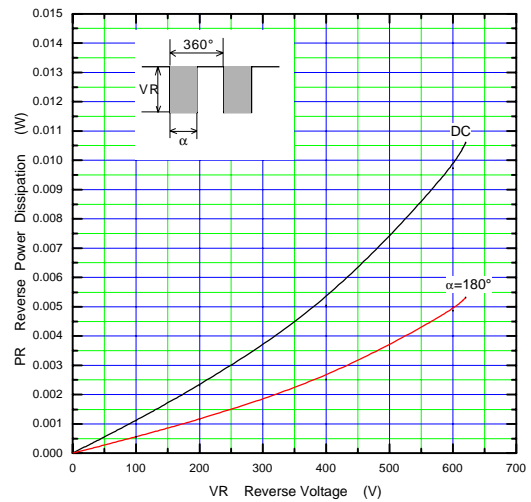
Reverse Characteristic (typ.)



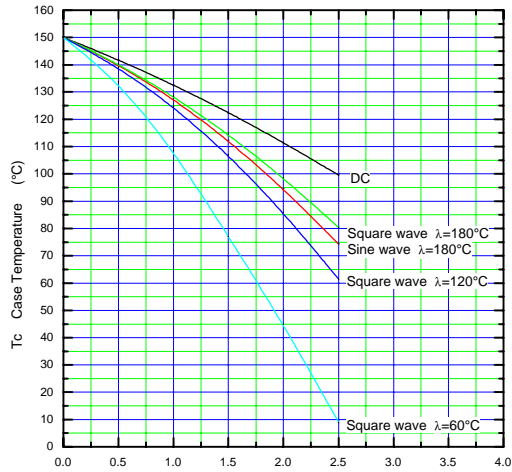
Forward Power Dissipation



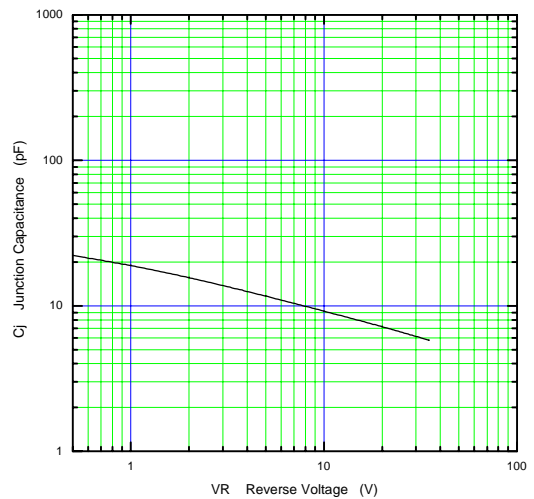
Reverse Power Dissipation



Current Derating (Io-Tc)

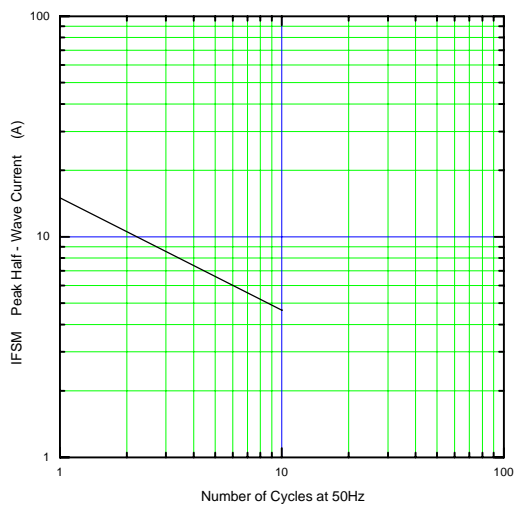


Junction Capacitance Characteristic (typ.)



Io: Average Output Current (A)
 λ: Conduction angle of forward current for each rectifier element
 Io: Output current of center-tap full wave connection

Surge Capability



Transient Thermal Impedance

