

MA3G695 (MA695)

Silicon planar type (cathode common)

For high-frequency rectification

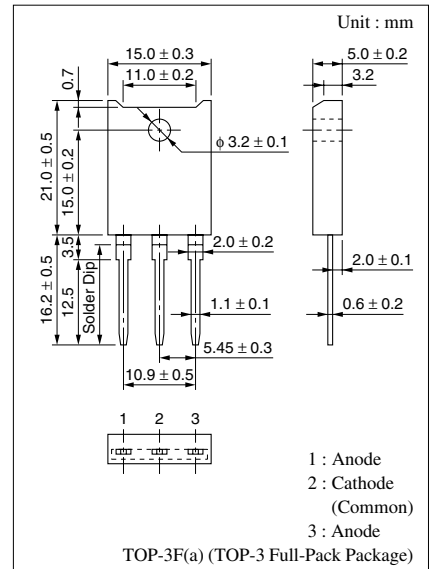
■ Features

- Cathode common dual type
- High reverse voltage V_R
- Low forward voltage V_F
- Fast reverse recovery time t_{rr}

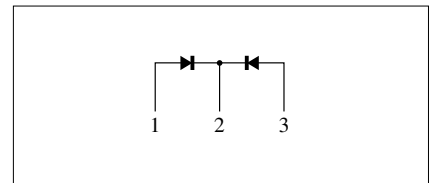
■ Absolute Maximum Ratings $T_a = 25^\circ\text{C}$

| Parameter | Symbol | Rating | Unit |
|--|-------------|-------------|------------------|
| Repetitive peak reverse voltage | V_{RRM} | 400 | V |
| Non-repetitive peak reverse surge voltage | V_{RSM} | 400 | V |
| Average forward current | $I_{F(AV)}$ | 20 | A |
| Non-repetitive peak forward surge current* | I_{FSM} | 120 | A |
| Junction temperature | T_j | -40 to +150 | $^\circ\text{C}$ |
| Storage temperature | T_{stg} | -40 to +150 | $^\circ\text{C}$ |

Note) * : Half sine-wave; 10 ms/cycle



Internal Connection

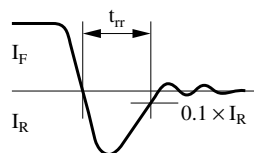
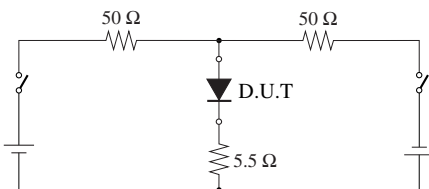


■ Electrical Characteristics $T_a = 25^\circ\text{C}$

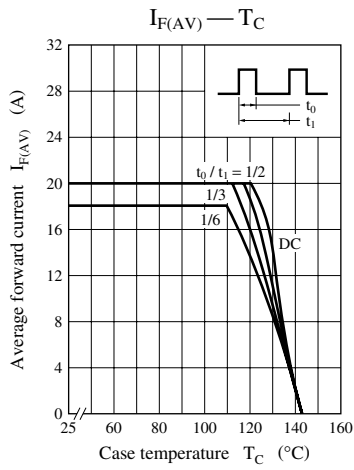
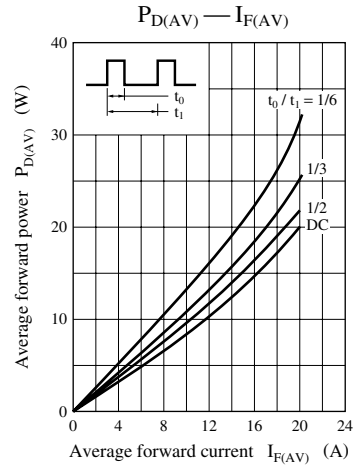
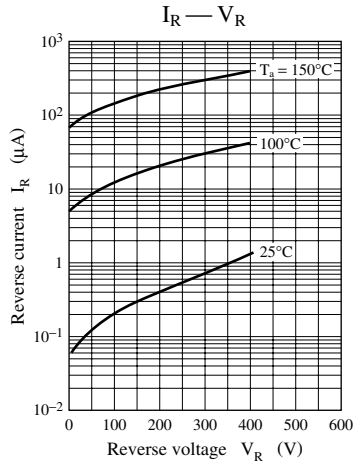
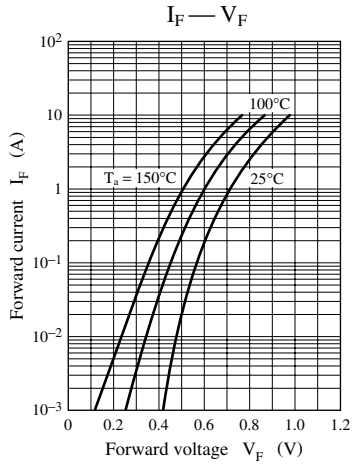
| Parameter | Symbol | Conditions | Min | Typ | Max | Unit |
|---------------------------------|---------------|---|-----|-----|------|--------------------|
| Repetitive peak reverse current | I_{RRM1} | $V_{RRM} = 400\text{ V}, T_C = 25^\circ\text{C}$ | | | 50 | μA |
| | I_{RRM2} | $V_{RRM} = 400\text{ V}, T_j = 150^\circ\text{C}$ | | | 10 | mA |
| Forward voltage (DC) | V_F | $I_F = 10\text{ A}, T_C = 25^\circ\text{C}$ | | | 1 | V |
| Reverse recovery time* | t_{rr} | $I_F = 1\text{ A}, I_R = 1\text{ A}$ | | | 100 | ns |
| Thermal resistance | $R_{th(j-c)}$ | Direct current (between junction and case) | | | 1.5 | $^\circ\text{C/W}$ |
| | $R_{th(j-a)}$ | | | | 41.6 | $^\circ\text{C/W}$ |

Note) 1. Rated input/output frequency: 10 MHz

2. * : t_{rr} measuring circuit



Note) The part number in the parenthesis shows conventional part number.



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