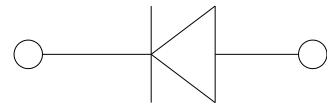


Fast Recovery Rectifier in DO-204AL(DO-41)

Features

- Low forward voltage drop
- High current capability
- High reliability
- High surge current capability



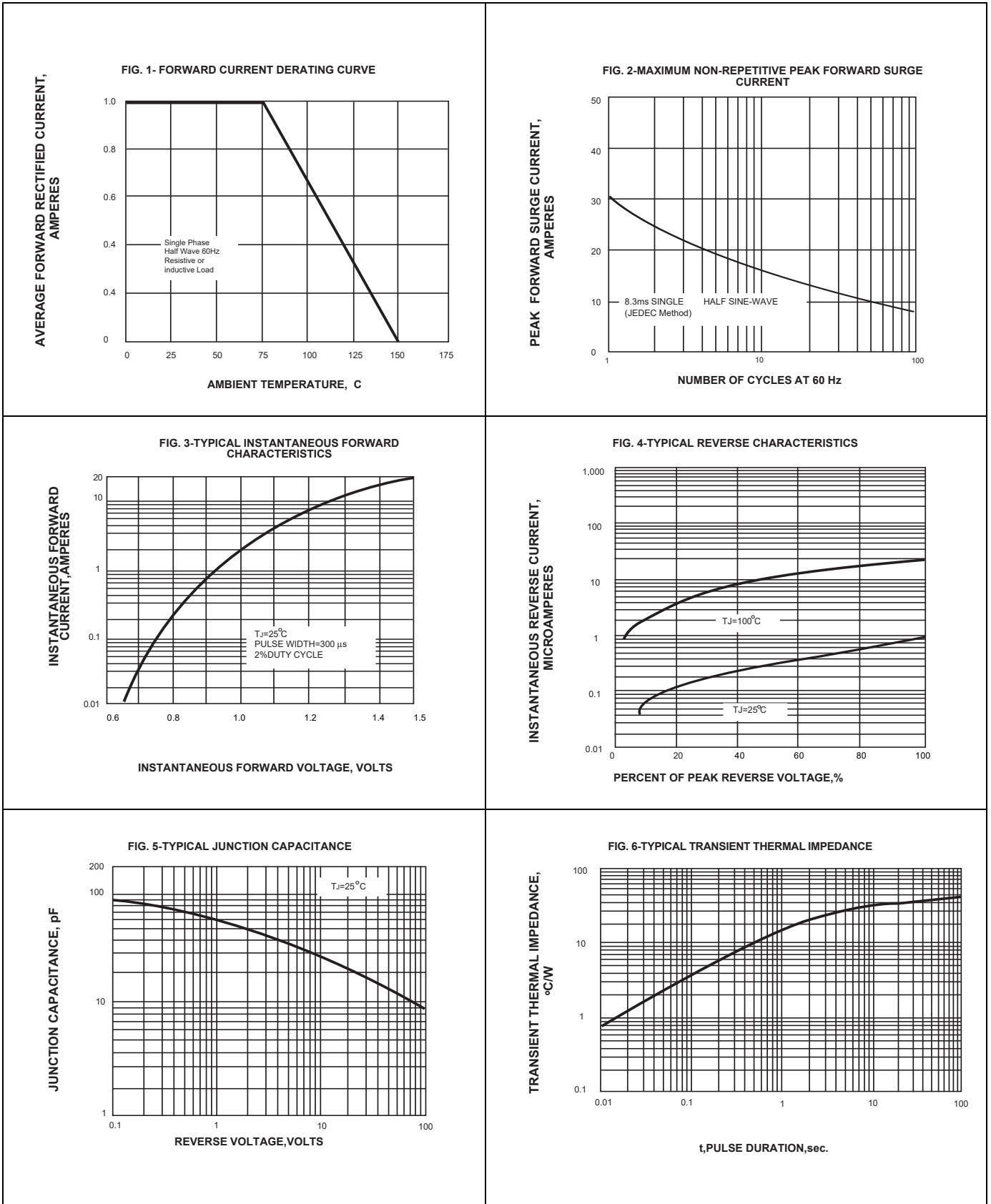
Mechanical Data

- **Case:** JEDEC DO-41 molded plastic
Lead free; RoHS compliant
- **Molding Compound Flammability Rating:**
UL 94 V-0
- **Terminals:** High temperature soldering guaranteed:
260 °C/10 sec. at terminals

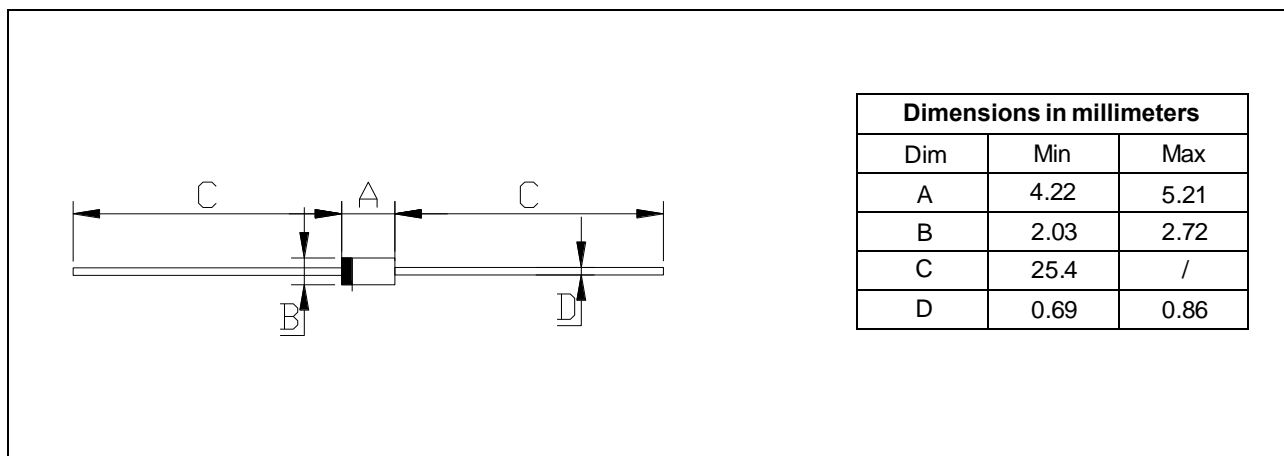
| Maximum Ratings And Electrical Characteristics | | | | | | | | | |
|--|------------------------------------|---------------|-------|-------|-------|-------|-------|-------|--------------------|
| Ratings at 25° C ambient temperature unless otherwise specified. Single phase half-wave 60Hz, resistive or inductive load, for capacitive load current derate by 20%. | | | | | | | | | |
| Parameter | Symbols | FR101 | FR102 | FR103 | FR104 | FR105 | FR106 | FR107 | Units |
| Maximum repetitive peak reverse voltage | V_{RRM} | 50 | 100 | 200 | 400 | 600 | 800 | 1000 | Volts |
| Maximum RMS voltage | V_{RMS} | 35 | 70 | 140 | 280 | 420 | 560 | 700 | Volts |
| Maximum DC blocking voltage | V_{DC} | 50 | 100 | 200 | 400 | 600 | 800 | 1000 | Volts |
| Maximum average forward rectified current See Fig. 1 @ $T_A=90^\circ\text{C}$ | I_{AV} | 1.0 | | | | | | | Amp |
| Peak forward surge current, 8.3 ms single half sine-wave superimposed on rated load (JEDEC Method) | I_{FSM} | 30.0 | | | | | | | Amps |
| Maximum instantaneous forward voltage @ 1.0A | V_F | 1.3 | | | | | | | Volts |
| Maximum DC reverse current at rated DC blocking voltage | I_R | 5.0 50 | | | | | | | μA |
| Maximum reverse recovery time (Note 1) | t_{tr} | 150 | | | | 250 | 500 | | nS |
| Typical junction capacitance (Note 2) | C_J | 10 | | | | | | | pF |
| Typical thermal resistance (Note 3) | $R_{\theta JA}$ $R_{\theta JL}$ | 105.0 32.0 | | | | | | | $^\circ\text{C/W}$ |
| Operating temperature range | T_J | -55 to +150 | | | | | | | $^\circ\text{C}$ |
| Storage temperature range | T_{STG} | -55 to +150 | | | | | | | $^\circ\text{C}$ |

- Notes:**
1. Reverse Recovery Test Conditions: $I_F=0.5\text{A}$, $I_R=1.0\text{A}$, $I_{RR}=0.25\text{A}$
 2. Measured at 1 MHz and Applied $V_R=4.0$ Volts
 3. Thermal Resistance from Junction to Ambient and from Junction to Lead Mounted on P.C.B. with 0.2" x 0.2" (5.0 x 5.0 mm) Copper Pad Areas

Typical Characteristics ($T_{amb} = 25\text{ }^{\circ}\text{C}$ unless otherwise specified)



Package Dimensions



Ordering information

| Order code | Package | Packaging option | Base quantity | Packaging specification |
|------------------|---------|------------------|---------------|-------------------------|
| FR101 thur FR107 | DO-41 | Tape and BOX | 5000pcs | EIA STD RS-481 |

Revision history

| Date | Revision | Changes |
|-------------|----------|-----------------|
| 23-May-2012 | 1.0 | Initial release |

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