

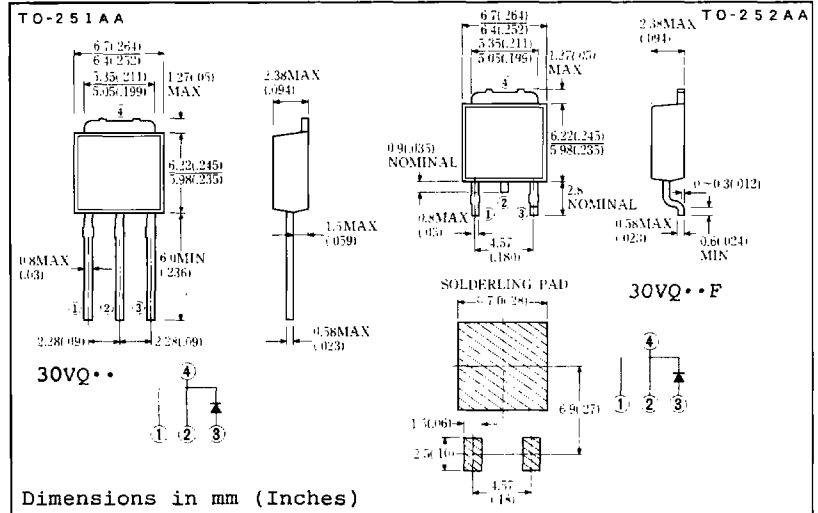
SCHOTTKY BARRIER DIODE

3.3A/50~60V

30VQ05 30VQ06
30VQ05F 30VQ06F

FEATURES

- TO-251AA Case
- TO-252AA Case
Surface Mount Device
- Low Forward Voltage Drop
- Low Power Loss
- High Surge Capability
- 30 Volts thru 100 Volts
Types Available
- Packaged in 16mm
Tape and Reel
(TO-252AA Case)



MAXIMUM RATINGS

| Voltage Rating | TYPE | ◆ 30VQ05 ◆ 30VQ05F | 30VQ06 30VQ06F | Unit | |
|--------------------------------------|--------------|---------------------------------------------------------------|-------------------|------------|------|
| | Symbol | | | | |
| Repetitive Peak Reverse Voltage | V_{RRM} | 50 | 60 | v | |
| Non-Repetitive Peak Reverse Voltage | V_{RSM} | 55 | 65 | v | |
| Electrical Rating | Symbol | Condition | | Rating | Unit |
| Average Rectified Output Current | I_O | 180° rectangular wave conduction $T_C = 104^\circ\text{C}$ | | 3.3 | A |
| | | 180° sinusoidal wave conduction $T_C = 108^\circ\text{C}$ | | 3.0 | |
| RMS Forward Current | $I_{F(RMS)}$ | | | 4.7 | A |
| Peak One-cycle Forward Surge Current | I_{FSM} | 50Hz half sine wave, non-repetitive | | 40 | A |
| Operating Junction Temperature Range | T_{jw} | | | -40 to 125 | °C |
| Storage Temperature Range | T_{stg} | | | -40 to 125 | °C |

ELECTRICAL & THERMAL CHARACTERISTICS

| Characteristics | Symbol | Test Condition | | Max. | Unit |
|----------------------|---------------|------------------------|--------------------------|------|------|
| Peak Forward Voltage | V_{FM} | $I_{FM} = 3.0\text{A}$ | $T_j = 25^\circ\text{C}$ | 0.7 | v |
| Peak Reverse Current | I_{RM} | $V_{RM} = V_{RRM}$ | $T_j = 25^\circ\text{C}$ | 2.0 | mA |
| Thermal Resistance | $R_{th(j-c)}$ | Junction to Case | | 6 | °C/W |

◆ For spare parts only

FIG.1-FORWARD VOLTAGE VS. FORWARD CURRENT

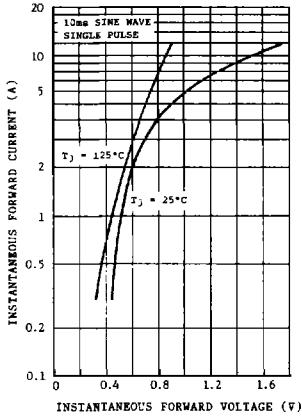


FIG.2-AVERAGE FORWARD POWER DISSIPATION

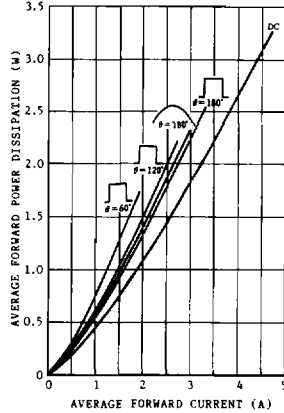


FIG.3-PEAK REVERSE CURRENT VS. PEAK REVERSE VOLTAGE

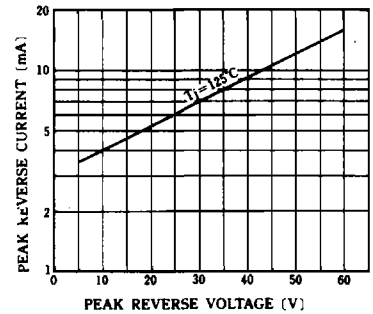


FIG.4-AVERAGE REVERSE POWER DISSIPATION

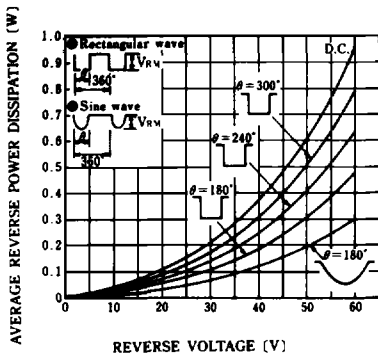


FIG.5-AVERAGE FORWARD CURRENT VS. AMBIENT TEMPERATURE

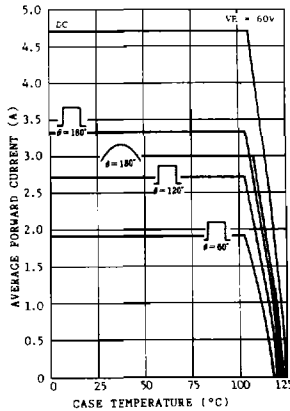


FIG.6-SURGE CURRENT RATINGS

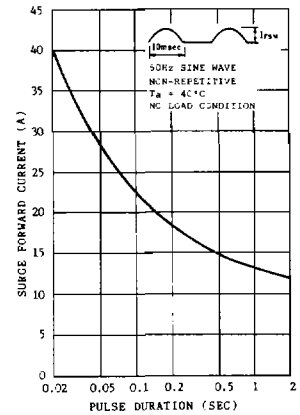


FIG.7-JUNCTION CAPACITANCE VS. REVERSE VOLTAGE

