



TAYCHIPST

Fast Silicon Rectifiers

MR820 THRU MR828

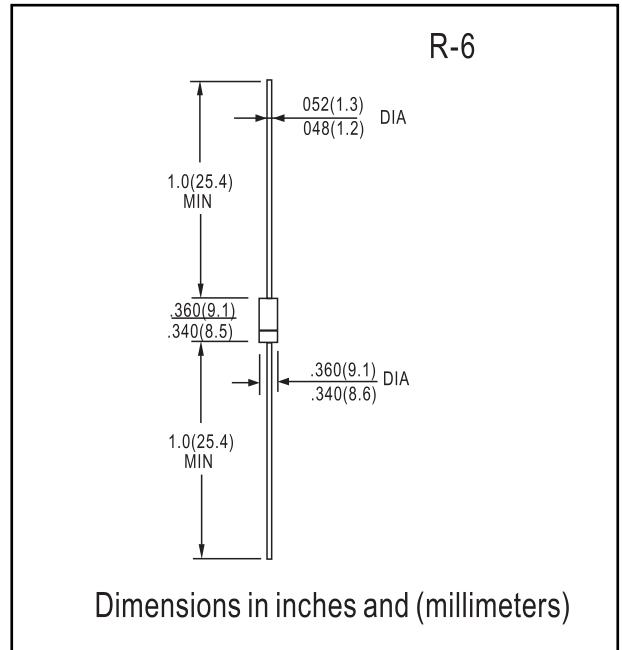
50V-800V 5.0A

FEATURES

- Plastic package has Underwrites Laboratory Flammability Classification 94V-0
- Fast switching speed
- Diffused junction
- High current capability
- High temperature soldering guaranteed : 250°C/10 seconds, 0.375"(9.5mm) lead length, 5 lbs.(2.3kg) tension.

Mechanical Data

- Case : P-6 molded plastic body
- Terminals : Plated axial lead solderable per MIL-STD-750, method 2026
- Polarity : Color band denotes cathode end
- Mounting Position : Any
- Weight : 0.07 ounce, 2.1 grams



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, derate by 20%)

| | Symbols | MR820 | MR821 | MR822 | MR824 | MR826 | MR828 | Units |
|--|------------------------------------|-------------|-------|-------|-------|-------|-------|-------|
| Maximum recurrent peak reverse voltage | V _{RRM} | 50 | 100 | 200 | 400 | 600 | 800 | Volts |
| Maximum RMS voltage | V _{RMS} | 35 | 70 | 140 | 280 | 420 | 560 | Volts |
| Maximum DC blocking voltage | V _{DC} | 50 | 100 | 200 | 400 | 600 | 800 | Volts |
| Maximum average forward rectified current 0.375" (9.5mm) lead length at T _A =55°C | I _(AV) | 5.0 | | | | | | Amps |
| Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC method) | I _{FSM} | 300.0 | | | | | | Amps |
| Maximum instantaneous forward voltage at 5.0A | V _F | 1.1 | | | | | | Volts |
| Maximum DC reverse current at rated DC blocking voltage | T _A =25°C | 10 | | | | | | μA |
| | T _A =100°C | 100 | | | | | | |
| Maximum reverse recovery time (Note 1) | T _{rr} | 120 | | | | | | ns |
| Maximum thermal resistance | R _{θJA} | 10 | | | | | | °C/W |
| Typical junction capacitance (Note 2) | C _J | 300 | | | | | | pF |
| Operating junction and storage temperature range | T _J T _{STG} | -55 to +150 | | | | | | °C |

Notes:

- (1) Test conditions: I_F=0.5A, I_R=1.0A, I_{rr}=0.25A.
- (2) Measured at 1MHz and applied reverse voltage of 4.0 Volts.

RATINGS AND CHARACTERISTIC CURVES MR820 THRU MR828

FIG. 1 -REVERSE RECOVERY TIME CHARACTERISTIC AND TEST CIRCUIT DIAGRAM

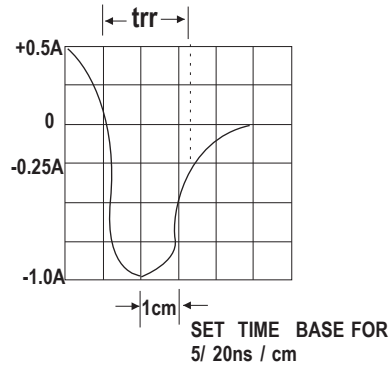
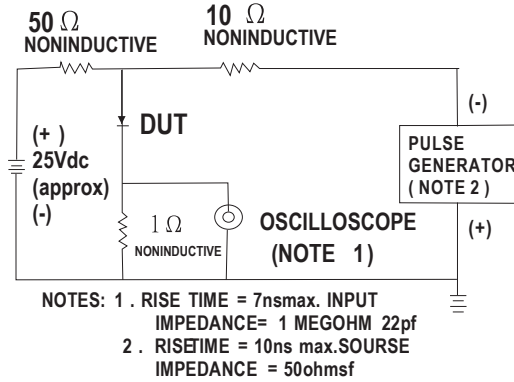


FIG. 2 MAXIMUM CURRENT DERATING CURVE

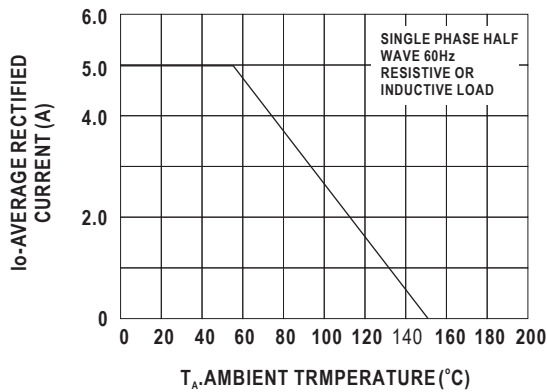


FIG. 3 MAXIMUM FORWARD SURGE NUMBER OF CYCLES

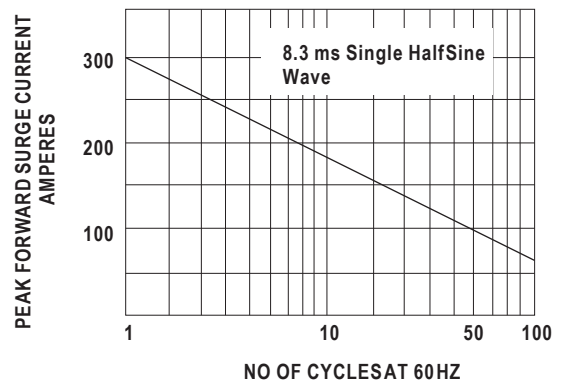


FIG. 4 TYPICAL JREVERSE CHARACTERISTICS

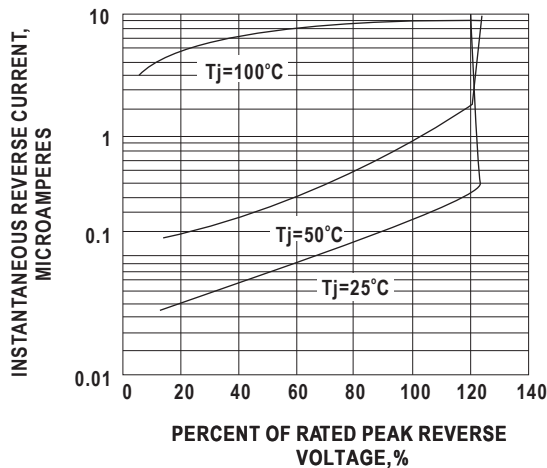


FIG. 5 TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

