

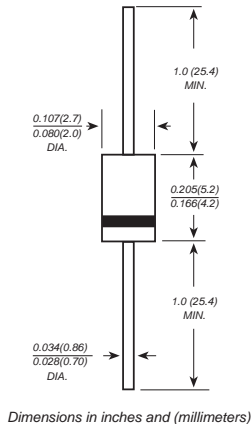


SF11G THRU SF18G

SUPER FAST GLASS PASSIVATED RECTIFIER

Reverse Voltage - 50 to 600 Volts Forward Current -1.0 Ampere

DO-41



FEATURES

- ◆ The plastic package carries Underwriters Laboratory Flammability Classification 94V-0
- ◆ Super fast switching for high efficiency
- ◆ Low reverse leakage
- ◆ High forward surge current capability
- ◆ High temperature soldering guaranteed:
250°C/10 seconds, 0.375" (9.5mm) lead length, 5 lbs. (2.3kg) tension
- ◆ Glass passivated junction

MECHANICAL DATA

Case: JEDEC DO-41 molded plastic body
Terminals: Plated axial leads, solderable per MIL-STD-750, Method 2026
Polarity: Color band denotes cathode end
Mounting Position: Any
Weight: 0.012 ounce, 0.33 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 current derate by 20%.

| MDD Catalog Number | SYMBOLS | SF11G | SF12G | SF13G | SF14G | SF15G | SF16G | SF18G | UNITS | |
|---|-----------------|-------------|-------|-------|-------|-------|-------|-------|--------------------|---------------|
| Maximum repetitive peak reverse voltage | V_{RRM} | 50 | 100 | 150 | 200 | 300 | 400 | 600 | VOLTS | |
| Maximum RMS voltage | V_{RMS} | 35 | 70 | 105 | 140 | 210 | 280 | 420 | VOLTS | |
| Maximum DC blocking voltage | V_{DC} | 50 | 100 | 150 | 200 | 300 | 400 | 600 | VOLTS | |
| Maximum average forward rectified current 0.375" (9.5mm) lead length at $T_A=55^\circ\text{C}$ | $I_{(AV)}$ | 1.0 | | | | | | | Amps | |
| Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC Method) | I_{FSM} | 30.0 | | | | | | | Amps | |
| Maximum instantaneous forward voltage at 1.0A | V_F | 0.95 | | | 1.25 | | 1.7 | | Volts | |
| Maximum DC reverse current $T_A=25^\circ\text{C}$ at rated DC blocking voltage $T_A=100^\circ\text{C}$ | I_R | 5.0 | | | | | 50.0 | | | μA |
| Maximum reverse recovery time (NOTE 1) | t_{rr} | 35 | | | | | | | ns | |
| Typical junction capacitance (NOTE 2) | C_J | 15.0 | | | 10.0 | | | | pF | |
| Typical thermal resistance (NOTE 3) | $R_{\theta JA}$ | 60.0 | | | | | | | $^\circ\text{C/W}$ | |
| Operating junction and storage temperature range | T_J, T_{STG} | -65 to +150 | | | | | | | $^\circ\text{C}$ | |

- Note:**
- 1.Reverse recovery condition $I_F=0.5A, I_R=1.0A, I_{rr}=0.25A$
 - 2.Measured at 1MHz and applied reverse voltage of 4.0V D.C.
 - 3.Thermal resistance from junction to ambient at 0.375" (9.5mm) lead length, P.C.B. mounted

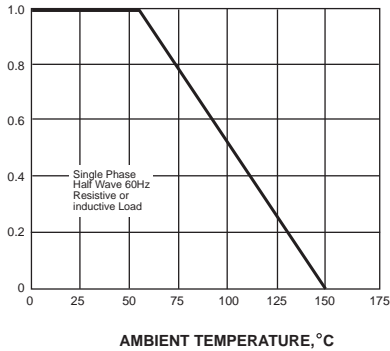


www.microdiode.com

RATINGS AND CHARACTERISTIC CURVES SF11G THRU SF18G

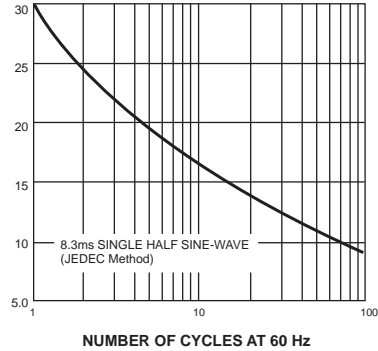
AVERAGE FORWARD RECTIFIED CURRENT,
AMPERES

FIG. 1- FORWARD CURRENT DERATING CURVE



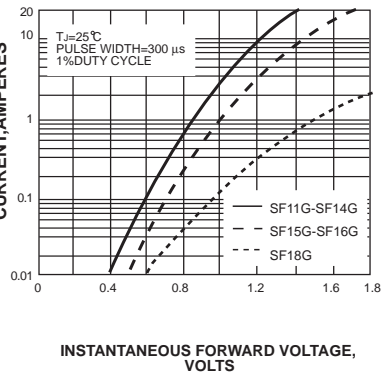
PEAK FORWARD SURGE CURRENT,
AMPERES

FIG. 2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT



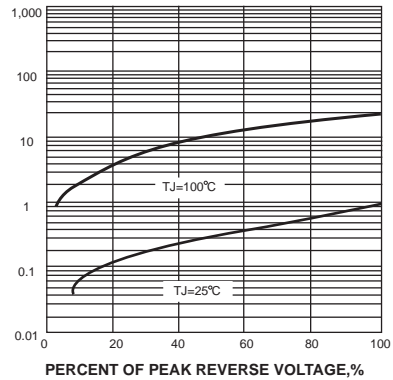
INSTANTANEOUS FORWARD CURRENT,AMPERES

FIG. 3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS



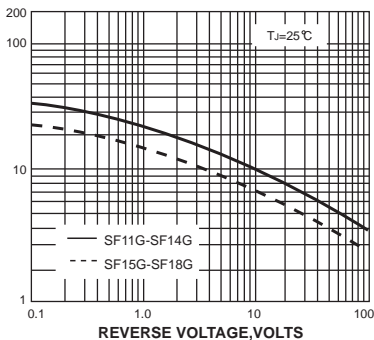
INSTANTANEOUS REVERSE CURRENT,
MICROAMPERES

FIG. 4-TYPICAL REVERSE CHARACTERISTICS



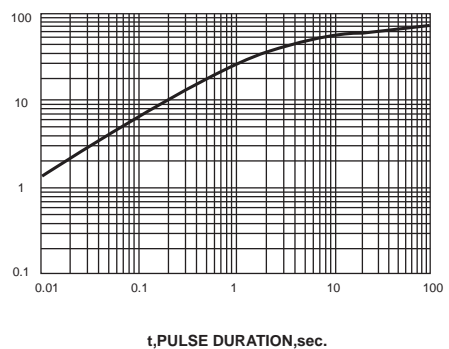
JUNCTION CAPACITANCE, pF

FIG. 5-TYPICAL JUNCTION CAPACITANCE



TRANSIENT THERMAL IMPEDANCE,
°C/W

FIG. 6-TYPICAL TRANSIENT THERMAL IMPEDANCE



The cruve graph is for reference only, can't be the basis for judgment(曲线图仅供参考)!



www.microdiode.com