



TAYCHIPST

Surface Mount Schottky Rectifier

DSS32 THRU DSS310

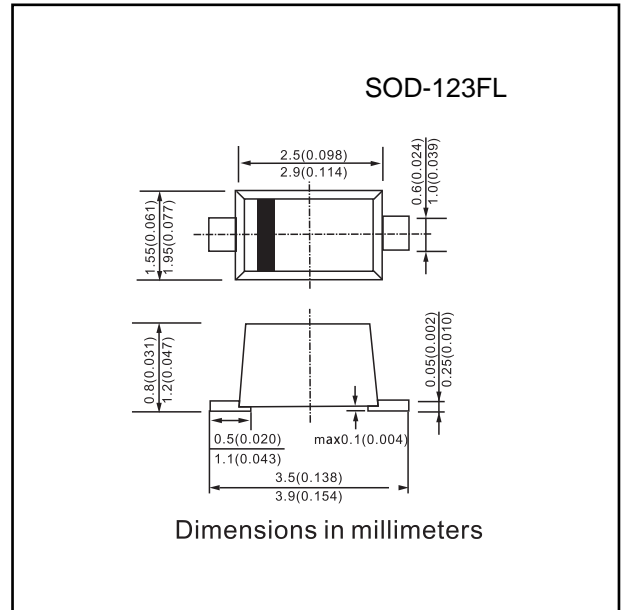
20V-100V 3.0A

FEATURES

- Low profile package
- Ideal for automated placement
- Ultrafast reverse recovery time
- Low power losses, high efficiency
- Low forward voltage drop
- High surge capability
- High temperature soldering:
260°C/10 seconds at terminals
- Component in accordance to
RoHS 2002/95/1 and WEEE 2002/96/EC

MECHANICAL DATA

- **Case:** JEDEC SOD-123FL molded plastic body over passivated chip
- **Terminals:** Solder plated, solderable per J-STD-002B and JESD22-B102D
- **Polarity:** Laser band denotes cathode end
- **Weight:** 0.017gram



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%.

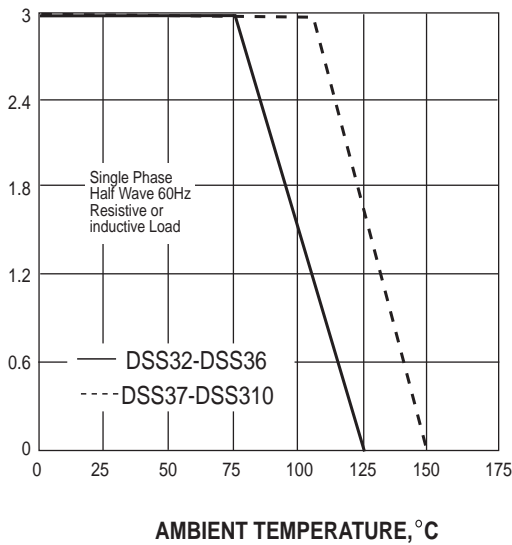
| Characteristic | SYMBOLS | DSS32 | DSS33 | DSS34 | DSS35 | DSS36 | DSS37 | DSS38 | DSS39 | DSS310 | UNITS |
|--|-------------------|-------------|-------|-------|-------|-------------|-------|-------|-------|--------|-------|
| Maximum repetitive peak reverse voltage | V _{RRM} | 20 | 30 | 40 | 50 | 60 | 70 | 80 | 90 | 100 | VOLTS |
| Maximum RMS voltage | V _{RMS} | 14 | 21 | 28 | 35 | 42 | 49 | 56 | 63 | 70 | VOLTS |
| Maximum DC blocking voltage | V _{DC} | 20 | 30 | 40 | 50 | 60 | 70 | 80 | 90 | 100 | VOLTS |
| Maximum average forward rectified current | I _(AV) | 3.0 | | | | | | | | | Amp |
| Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC Method) | I _{FSM} | 80.0 | | | | | | | | | Amps |
| Maximum instantaneous forward voltage at 3.0A | V _F | 0.52 | 0.55 | 0.70 | | 0.85 | | | | Volts | |
| Maximum DC reverse current at rated DC blocking voltage | I _R | 0.5 | | | | | | | | | mA |
| TA=25°C TA=100°C | | 20.0 | | | | 10.0 | | | | | |
| Operating junction temperature range | T _J | -50 to +125 | | | | -50 to +150 | | | | °C | |
| Storage temperature range | T _{STG} | -50 to +150 | | | | | | | | | °C |



RATINGS AND CHARACTERISTIC CURVES DSS32 THRU DSS310

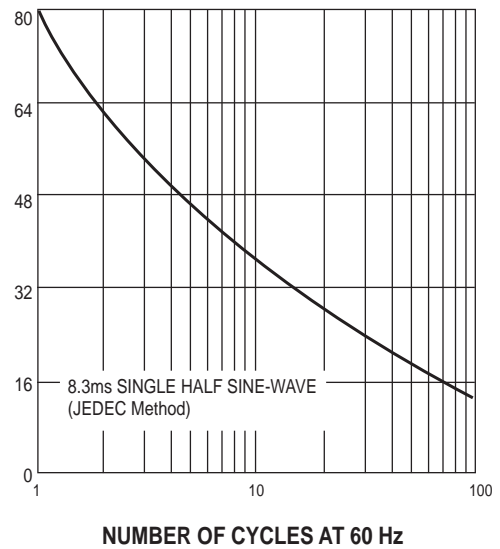
AVERAGE FORWARD RECTIFIED CURRENT, AMPERES

FIG. 1- FORWARD CURRENT DERATING CURVE



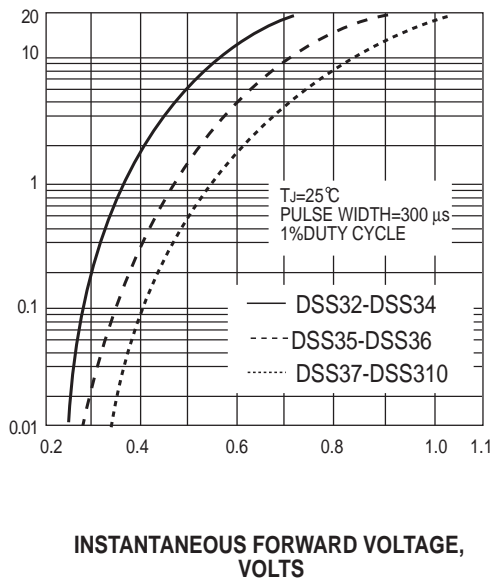
PEAK FORWARD SURGE CURRENT, AMPERES

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



INSTANTANEOUS FORWARD CURRENT, AMPERES

FIG. 3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS



INSTANTANEOUS REVERSE CURRENT, MILLIAMPERES

FIG. 4-TYPICAL REVERSE CHARACTERISTICS

