



SMS120-SMS1A0

Surface Mount Schottky Barrier Rectifiers

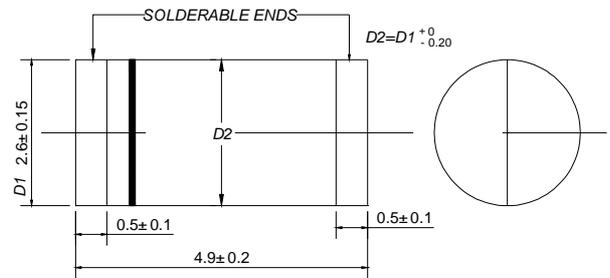
REVERSE VOLTAGE: 20 --- 100 V

CURRENT: 1.0 A

Features

- Plastic package has Underwriters Laborator Flammability Classification 94V-0
- For surface mounted applications
- Low profile package
- Built-in strain relief
- Metal silicon junction, majority carrier conduction
- High surge capability
- High current capability, low forward voltage drop
- Low power loss, high efficiency
- For use in low voltage high frequency inverters, free wheeling and polarity protection applications
- Guardring for overvoltage protection
- High temperature soldering guaranteed: 250°C/10 seconds at terminals

DO - 213AB



Dimensions in millimeters

Mechanical Data

- Case: JEDEC DO-213AB, molded plastic over passivated chip
- Polarity: Color band denotes cathode end
- Weight: 0.0046 ounces, 0.116 gram

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25°C ambient temperature unless otherwise specified

		SMS120	SMS130	SMS140	SMS160	SMS190	SMS1A0	UNITS
Maximum recurrent peak reverse voltage	V_{RRM}	20	30	40	60	90	100	V
Maximum RMS voltage	V_{RWS}	14	21	28	42	63	70	V
Maximum DC blocking voltage	V_{DC}	20	30	40	60	90	100	V
Maximum average forward rectified current at T_L (SEE FIG. 1) (NOTE 2)	$I_{(AV)}$	1.0						A
Peak forward surge current 8.3ms single half-sine-wave superimposed on rated load (JEDEC Method)	I_{FSM}	30						A
Maximum instantaneous forward voltage at 1.0A (NOTE 1)	V_F	0.5		0.7		0.79		V
Maximum DC reverse current @ $T_A=25^\circ\text{C}$ at rated DC blocking voltage (NOTE 1) @ $T_A=100^\circ\text{C}$	I_R	0.5 5.0						mA
Typical thermal resistance (NOTE 2)	R_{JA}	45						K/W
	R_{JL}	15						
Operating junction and storage temperature range	T_{STG}	-55 --- +150						°C
Storage temperature range	T_J	-55 --- +150						°C

NOTE: 1. Pulse test: 300 μ s pulse width, 1% duty cycle

2. P.C.B. mounted with 0.55"X0.55" (14.0X14.0mm²) copper pad areas

Ratings AND Characteristic Curves

FIG.1 – FORWARD DERATING CURVE

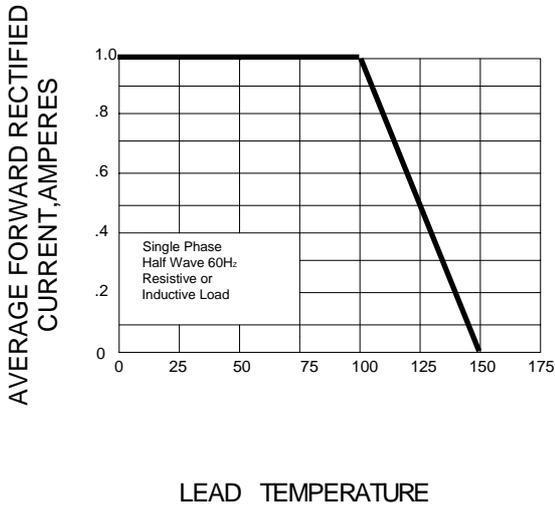


FIG.2- PEAK FORWARD SURGE CURRENT

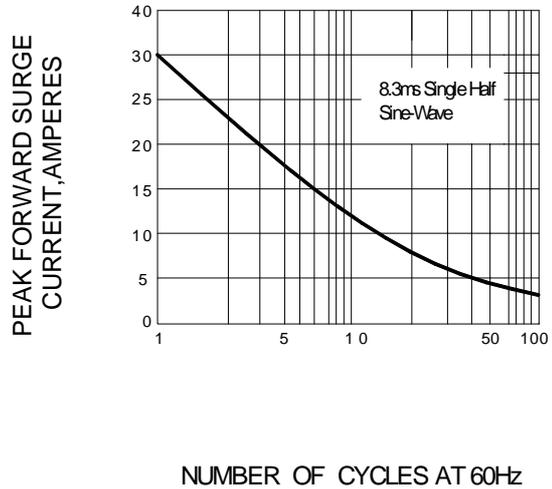


FIG.3 – TYPICAL FORWARD CHARACTERISTICS

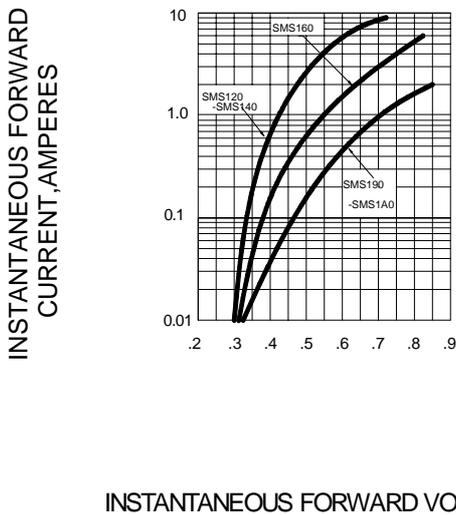


FIG.4 – TYPICAL REVERSE CHARACTERISTICS

