

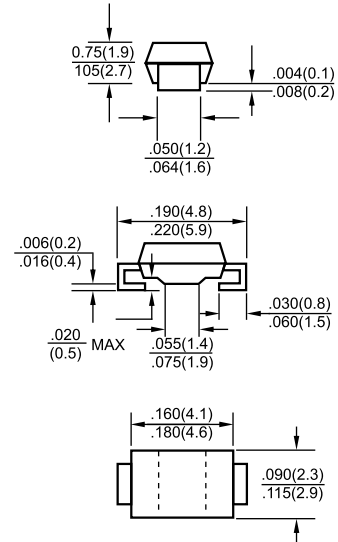


M20(SMA)
Surface Mount Rectifiers



VOLTAGE RANGE: 2000V
CURRENT:1.0A

SMA/DO-214AC



Dimensions in millimeters

Features

- ◇ Molded case feature for auto insertion ◇ High current capability
- ◇ Low leakage current
- ◇ High surge capability
- ◇ High temperature soldering guaranteed:
 260/10sec/0.375" (9.5mm) lead length at 5 lbs tension
- ◇ The plastic material carries U/L recognition 94V-0

Mechanical Data

- ◇ Case:JEDEC SMA,molded plastic
- ◇ Terminals: Axial lead ,solderable per MIL- STD-750, Method 2026
- ◇ Polarity: Color band denotes cathode ◇
 Mounting position: Any

MAXIMUM RATINGS AND ELECTRICAL CHARACTERS

Ratings at 25°C ambient temperature unless otherwise specified.

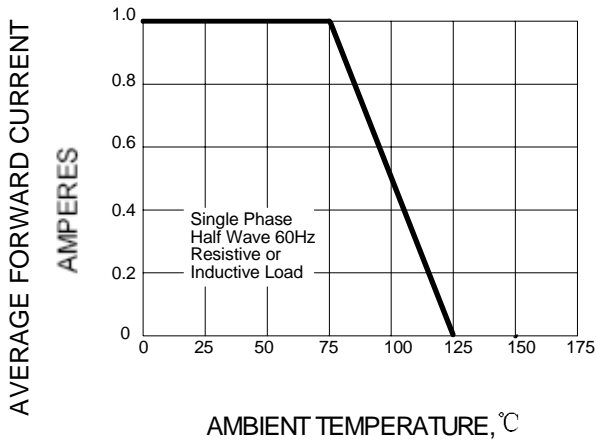
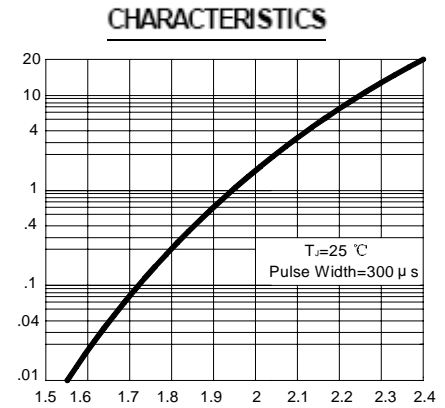
Single phase,half wave,60HZ,resistive or inductive load.For capacitive load,derate by 20%.

Type Number	Symbol	M20	UNITS
Maximum recurrent peak reverse voltage	V_{RRM}	2000	V
Maximum RMS voltage	V_{RMS}	1400	V
Maximum DC blocking voltage	V_{DC}	2000	V
Maximum average forward rectified current 9.5mm lead length, @ $T_L=75^\circ C$	$I_{F(AV)}$	1.0	A
Peak forward surge current 8.3ms single half-sine-wave superimposed on rated load @ $T_J=125^\circ C$	I_{FSM}	30	A
Maximum instantaneous forward voltage @ $I_F=1.0A$	V_F	2.0	V
Maximum DC Reverse Current @ $T_A=25^\circ C$	I_R	5	μA
at Rated DC Blocking Voltage @ $T_A=100^\circ C$	I_R	50	μA
Typical Junction Capacitance (Note 1)	C_J	20	pF
Typical thermal resistance (Note2)	$R_{\theta JA}$	80	$^\circ C/W$
Operating junction temperature range	T_J	-55 to +125	$^\circ C$
Storage Temperature Range	T_{STG}	-55 to +150	$^\circ C$

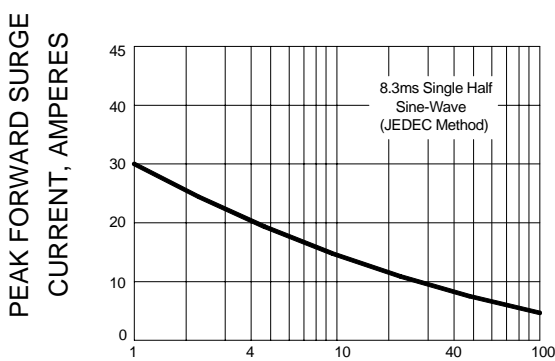
Note: 1. Measured at 1.0MHz and applied reverse voltage of 4.0V DC.

2. Thermal resistance from junction to ambient at 0.375"(9.5mm) lead length, P.C.board mounted.

Ratings AND Characteristic Curves

FIG.1 – TYPICAL FORWARD CURRENT DERATING CURVE

FIG.2 – TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS


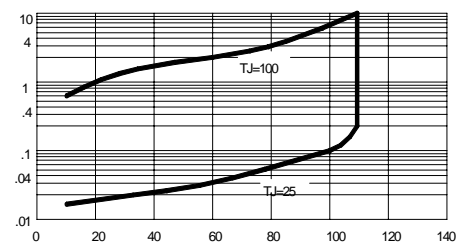
INSTANTANEOUS FORWARD VOLTAGE, VOLTS

FIG.3 – MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT
SURGE CURRENT


NUMBER OF CYCLES AT 60Hz

FIG.4 – TYPICAL REVERSE CHARACTERISTICS

INSTANTANEOUS REVERSE CURRENT, MICRO AMPERES



PERCENT OF RATED PEAK REVERSE VOLTAGE, %