EIC®

SN3A - SN3M

SURFACE MOUNT RECTIFIERS

PRV : 50 - 1000 Volts
Io : 3.0 Amperes

SMC (DO-214AB)

0.320(8.13)
0.305(7.75)

0.280(7.11)
0.260(6.60)

0.060(1.52)
0.030(0.76)

0.008(0.203)
0.004(0.102)

0.121(3.07)
0.115(2.92)

0.012(0.305)
0.006(0.152)

0.245(6.22)
0.220(5.59)

0.103(2.62)
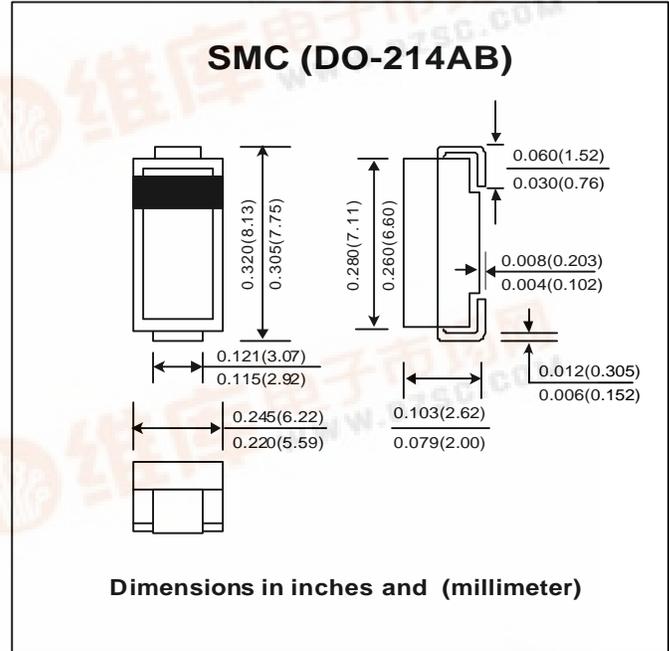0.079(2.00)

Dimensions in inches and (millimeter)

FEATURES :
* High current capability
* High surge current capability
* High reliability
* Low reverse current
* Low forward voltage drop

MECHANICAL DATA :
* Case : SMC Molded plastic
* Epoxy : UL94V-O rate flame retardant
* Lead : Lead Formed for Surface Mount
* Polarity : Color band denotes cathode end
* Mounting position : Any
* Weight : 0.26 gram

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Rating at 25 °C ambient temperature unless otherwise specified.
Single phase, half wave, 60 Hz, resistive or inductive load.
For capacitive load, derate current by 20%.

RATING	SYMBOL	SN3A	SN3B	SN3D	SN3G	SN3J	SN3K	SN3M	UNITS
Maximum Repetitive Peak Reverse Voltage	V_{RRM}	50	100	200	400	600	800	1000	V
Maximum RMS Voltage	V_{RMS}	35	70	140	280	420	560	700	V
Maximum DC Blocking Voltage	V_{DC}	50	100	200	400	600	800	1000	V
Maximum Average Forward Current Ta = 75 °C	I_F				3.0				A
Peak Forward Surge Current 8.3ms Single half sine wave Superimposed on rated load (JEDEC Method)	I_{FSM}				200				A
Maximum Forward Voltage at I_F = 3.0 Amps.	V_F				0.95				V
Maximum DC Reverse Current Ta = 25 °C	I_R				5.0				µA
at rated DC Blocking Voltage Ta = 100 °C	$I_{R(H)}$				50				µA
Typical Junction Capacitance (Note1)	C_J				50				pF
Junction Temperature Range	T_J				- 65 to + 150				°C
Storage Temperature Range	T_{STG}				- 65 to + 150				°C

Notes :
(1) Measured at 1.0 MHz and applied reverse voltage of 4.0V_{DC}

RATING AND CHARACTERISTIC CURVES (SN3A - SN3M)

FIG.1 - DERATING CURVE FOR OUTPUT RECTIFIED CURRENT

AVERAGE FORWARD OUTPUT CURRENT, AMPERES

AMBIENT TEMPERATURE, (°C)
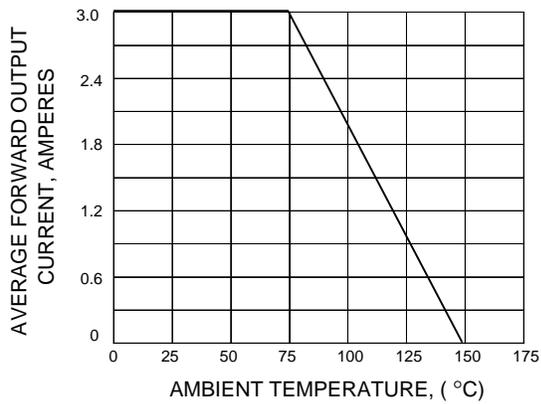
FIG.2 - MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

PEAK FORWARD SURGE CURRENT, AMPERES

T_L = 105 °C

8.3ms SINGLE HALF SINE-WAVE (JEDEC) Method

NUMBER OF CYCLES AT 60Hz
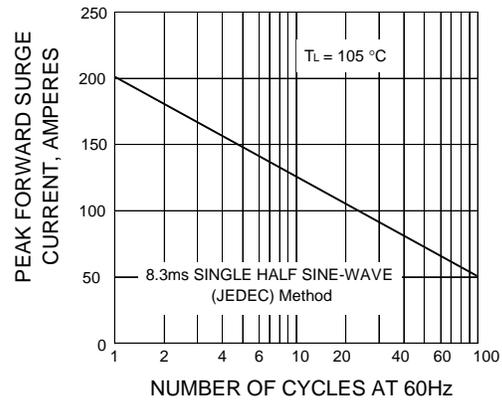
FIG.3 - TYPICAL FORWARD CHARACTERISTICS

FORWARD CURRENT, AMPERES

Pulse Width = 300 μs
2% Duty Cycle

T_J = 25 °C

FORWARD VOLTAGE, VOLTS

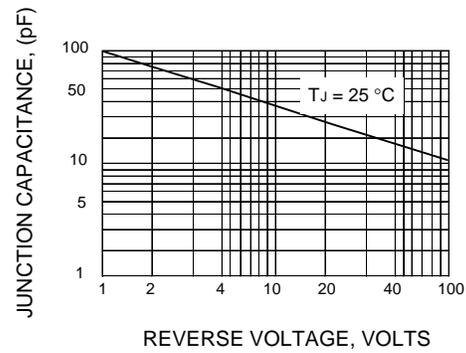### FIG 4 . - TYPICAL JUNCTION CAPACITANCE

JUNCTION CAPACITANCE, (pF)

T_J = 25 °C

REVERSE VOLTAGE, VOLTS
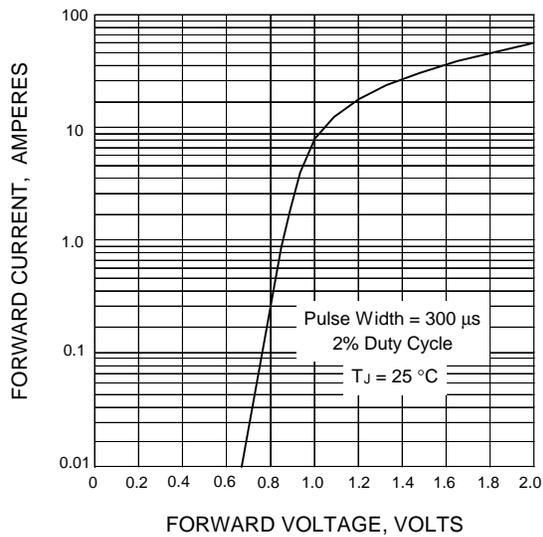
FIG. 5 - TYPICAL REVERSE CHARACTERISTICS

REVERSE CURRENT, MICROAMPERES

Ta = 100 °C

Ta = 25 °C

PERCENT OF RATED REVERSE VOLTAGE, (%)