

SM513A ~ SM2000A

SURFACE MOUNT RECTIFIERS

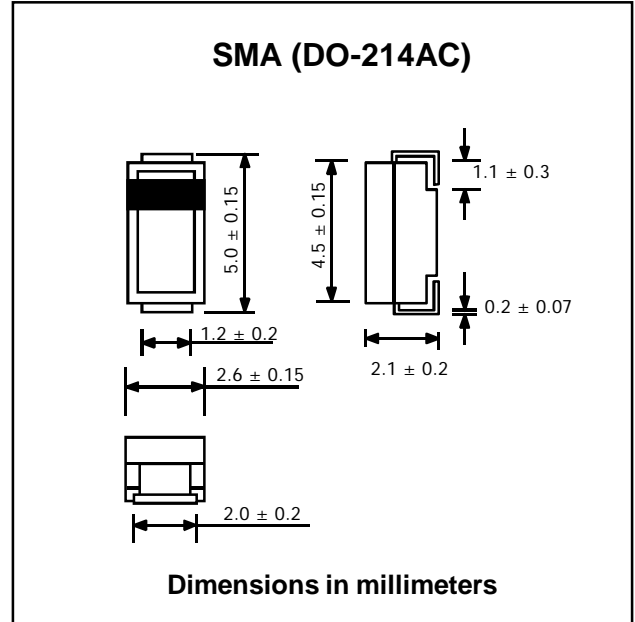
PRV : 1300 - 2000 Volts
Io : 1.0 Ampere

FEATURES :

- * High current capability
- * High surge current capability
- * High reliability
- * Low reverse current
- * Low forward voltage drop
- * Glass passivated junction chip
- * **Pb / RoHS Free**

MECHANICAL DATA :

- * Case : SMA Molded plastic
- * Epoxy : UL94V-0 rate flame retardant
- * Lead : Lead Formed for Surface Mount
- * Polarity : Color band denotes cathode end
- * Mounting position : Any
- * Weight : 0.067 gram (Approximately)



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	SM513A	SM516A	SM518A	SM2000A	UNIT
Maximum Repetitive Peak Reverse Voltage	V _{RRM}	1300	1600	1800	2000	V
Maximum RMS Voltage	V _{RMS}	1300	1600	1800	2000	V
Maximum Average Forward Current T _T = 75 °C	I _{F(AV)}	1.0				A
Peak Forward Surge Current 8.3ms Single half sine wave Superimposed on rated load (JEDEC Method)	I _{FSM}	40				A
Rating for fusing, t < 10 ms, T _A = 25 °C	I ² t	8				A ² s
Maximum Instantaneous Forward Voltage at I _F = 1.0 A, T _j = 25°C	V _F	1.1				V
Maximum DC Reverse Current T _j = 25 °C at rated DC Blocking Voltage T _j = 100 °C	I _R	<5				μA
	I _{R(H)}	<50				μA
Typical thermal resistance (Note 1)	R _{θJA}	45				K/W
	R _{θJL}	10				K/W
Junction Temperature Range	T _J	150				°C
Storage Temperature Range	T _{STG}	- 55 to + 150				°C

Notes :

(1) Thermal resistance from junction to ambient and from junction to lead mounted on P.C.B. with 0.2 x 0.2" (5.0 x 5.0mm) copper pad areas

RATING AND CHARACTERISTIC CURVES (SM513A ~ SM2000A)

FIG.1 - TYPICAL FORWARD CHARACTERISTICS

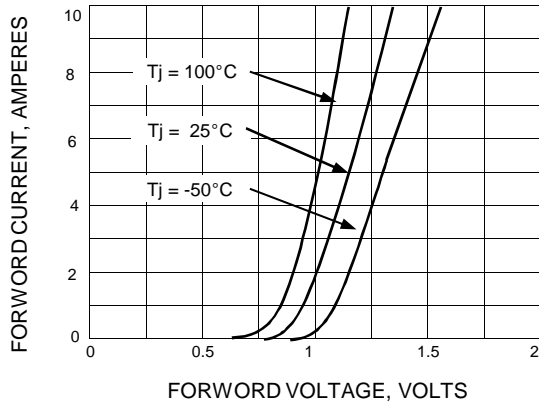


FIG.2 - RATED FORWARD CURRENT VS. TEMPERATURE OF THE TERMINAL

