

PRL4001A - PRL4002A

SURFACE MOUNT GLASS PASSIVATED JUNCTION

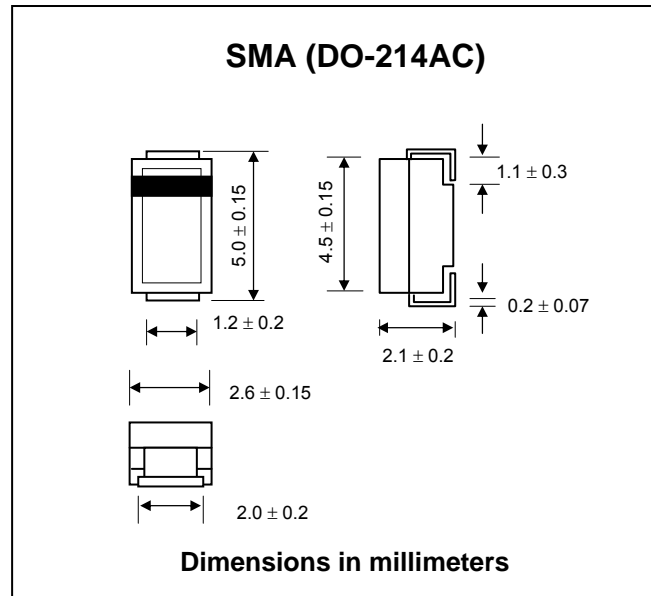
PRV : 50 - 100 Volts
Io : 1.6 Ampere

FEATURES :

- * Glass passivated junction chip
- * High maximum operating temperature
- * Low leakage current
- * Excellent stability
- * Smallest surface mount rectifier outline
- * Pb / RoHS Free

MECHANICAL DATA :

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



MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Rating at 25 °C ambient temperature unless otherwise specified

RATING	SYMBOL	PRL4001A	PRL4002A	UNIT
Maximum Repetitive Peak Reverse Voltage	V_{RRM}	50	100	V
Maximum Continuous Reverse Voltage	V_R	50	100	V
Maximum Average Forward Current	$I_{F(AV)}$	1.60 ⁽¹⁾		A
		0.68 ⁽²⁾		
Maximum Non-Repetitive Peak Forward Surge Current (Half sine wave; 60 Hz)	I_{FSM}	20		A
Maximum Repetitive Peak Forward Current	I_{FRM}	10		A
Maximum Forward Voltage at $I_F = 1.0$ A, $T_J = 25$ °C	V_F	1.1		V
Maximum Reverse Current at $V_R = V_{RRMmax}$ $T_J = 25$ °C $T_J = 100$ °C	I_R	10		μA
	$I_{R(H)}$	50		μA
Thermal Resistance from Junction to Tie-Point	$R_{th\ j-tp}$	30		K / W
Thermal Resistance from Junction to Ambient (Note 3)	$R_{th\ j-a}$	150		K / W
Junction Temperature Range	T_J	-65 to +175		°C
Storage Temperature Range	T_{STG}	-65 to +175		°C

Notes :

- (1) $T_{tp} = 105$ °C; averaged over any 20 ms period.
- (2) $T_{amb} = 65$ °C; averaged over any 20 ms period; see Fig. 1
- (3) Device mounted on an epoxy-glass printed-circuit board, 1.5 mm thick; thickness of Cu-layer ≥ 40 μm.

RATING AND CHARACTERISTIC CURVES (PRL4001A - PRL4002A)

FIG.1 - MAXIMUM AVERAGE FORWARD CURRENT AS A FUNCTION OF AMBIENT TEMPERATURE

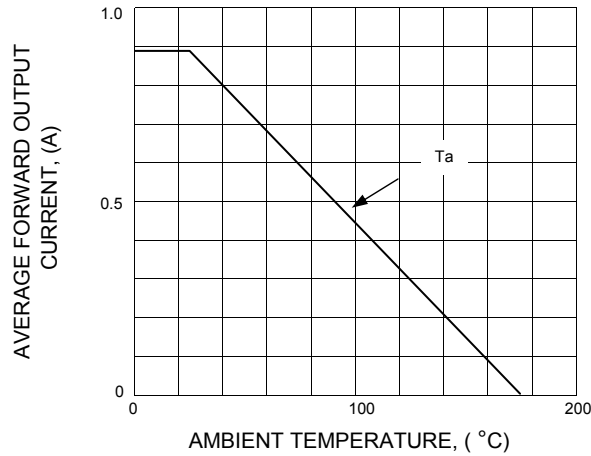


FIG.2 - FORWARD CURRENT AS S FUNCTION OF FORWARD VOLTAGE; TYPICAL VALUES

