

SMC1200D

SURFACE MOUNT FAST RECOVERY RECTIFIER DIODE

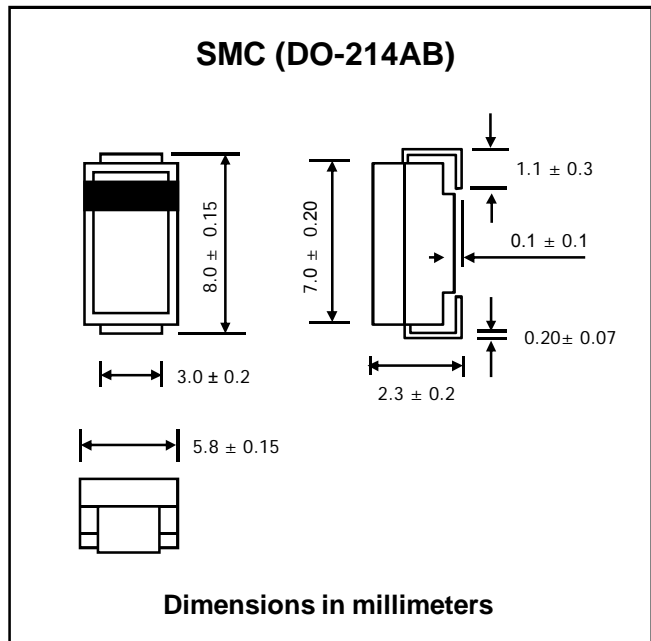
PRV : 200 Volts
I_o : 12 Amperes

FEATURES :

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

MECHANICAL DATA :

- * Case : SMC Molded plastic
- * Epoxy : UL94V-0 rate flame retardant
- * Lead : Lead Formed for Surface Mount
- * Polarity : Color band denotes cathode end
- * Mounting position : Any
- * Weight : 0.26 gram



MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Rating at 25 °C ambient temperature unless otherwise specified.

RATING	SYMBOL	VALUE	UNIT
Maximum Repetitive Peak Reverse Voltage	V_{RRM}	200	V
Maximum Surge Peak Reverse Voltage	V_{RSM}	200	V
Maximum Average Forward Current, $T_a = 50\text{ }^{\circ}\text{C}^{(1)}$	$I_{F(AV)}$	12	A
Peak Forward Surge Current, 60 Hz half sine-wave	I_{FSM}	390	A
Maximum Peak Forward Voltage at $I_F = 5\text{ A}$, $T_j = 25\text{ }^{\circ}\text{C}$	V_F	0.85	V
Maximum Reverse Current at $V_R = V_{RRM}$, $T_j = 25\text{ }^{\circ}\text{C}$	I_R	25	μA
Maximum Reverse Recovery Time ⁽¹⁾	T_{rr}	200	ns
Thermal Resistance Junction to Ambient Air	$R_{\theta JA}$	10	K/W
Operating Junction Temperature Range, at Reduced Reverse Voltage , $V_R \leq 80\% V_{RRM}$ $V_R \leq 20\% V_{RRM}$ in DC Forward Mode	T_J	- 50 to + 150	$^{\circ}\text{C}$
	T_J	- 50 to + 200	$^{\circ}\text{C}$
	T_J	- 50 to + 200	$^{\circ}\text{C}$
Storage Temperature Range	T_{STG}	- 50 to + 175	$^{\circ}\text{C}$

Notes :

(1) Reverse Recovery Test Conditions : $I_F = 0.5\text{ A}$, $I_R = 1.0\text{ A}$, $I_{rr} = 0.25\text{ A}$.

RATING AND CHARACTERISTIC CURVES (SMC1200D)

FIG.1 - RATED FORWARD CURRENT VS. AMBIENT TEMPERATURE

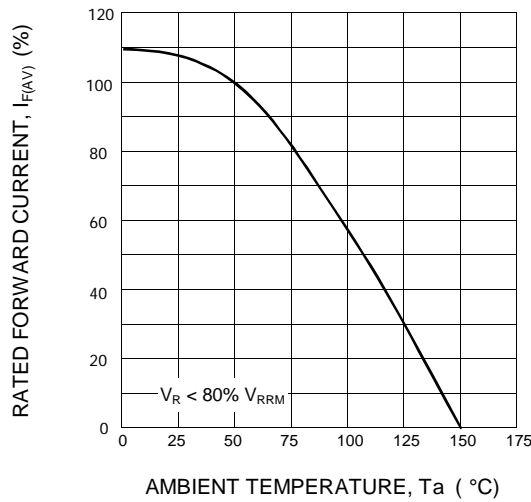


FIG.2 - TYPICAL FORWARD CHARACTERISTICS

