

SMC1200D

SURFACE MOUNT FAST RECOVERY RECTIFIER DIODE

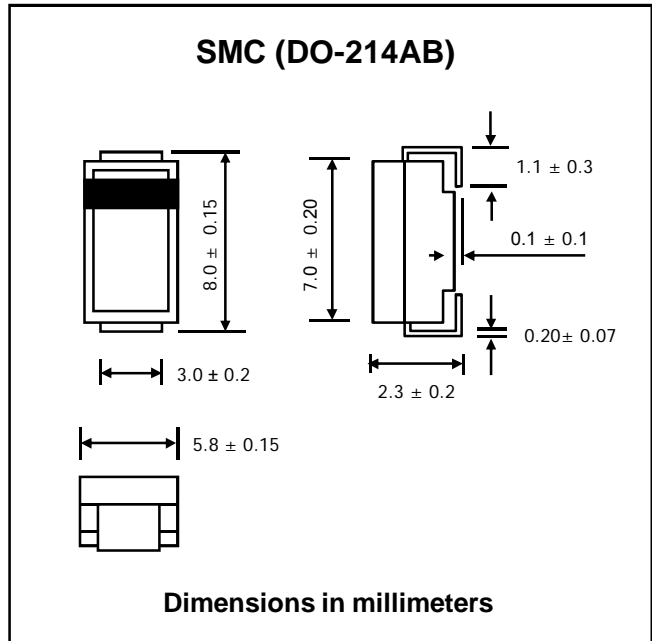
PRV : 200 Volts
I_o : 12 Amperes

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, Ta = 50 °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 A, T _j = 25 °C	V _F	0.85	V
Maximum Reverse Current at V _R = V _{RRM} , T _j = 25 °C	I _R	25	μA
Maximum Reverse Recovery Time ⁽¹⁾	T _{rr}	200	ns
Thermal Resistance Junction to Ambient Air	R _{θJA}	10	K/W
Operating Junction Temperature Range, at Reduced Reverse Voltage , V _R ≤ 80% V _{RRM} V _R ≤ 20% V _{RRM} in DC Forward Mode	T _J	- 50 to + 150	°C
	T _J	- 50 to + 200	°C
	T _J	- 50 to + 200	°C
Storage Temperature Range	T _{STG}	- 50 to + 175	°C

Notes :

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

RATING AND CHARACTERISTIC CURVES (SMC1200D)

FIG.1 - RATED FORWARD CURRENT VS. AMBIENT TEMPERATURE

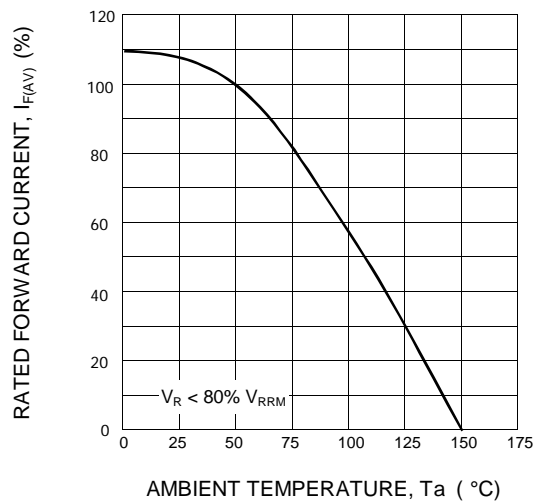


FIG.2 - TYPICAL FORWARD CHARACTERISTICS

