

SMC2000D

SURFACE MOUNT FAST RECOVERY RECTIFIER DIODE

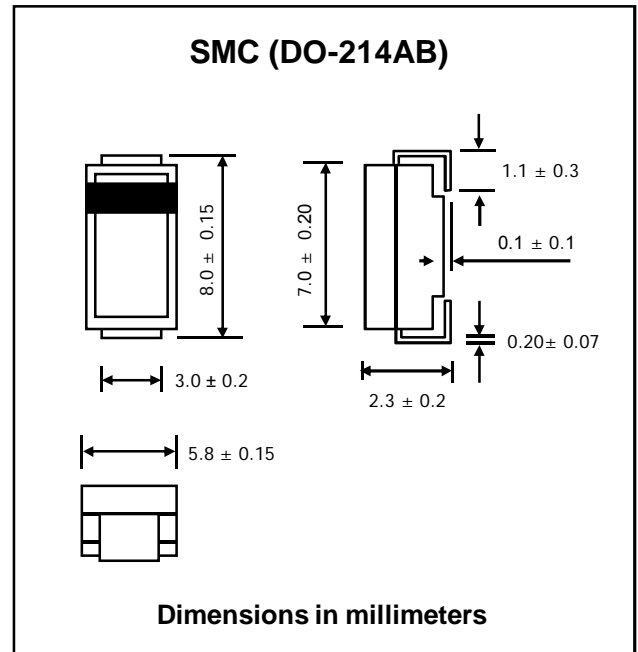
PRV : 200 Volts
Io : 20 Ampere

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, $T_C = 75\text{ }^\circ\text{C}$	$I_{F(AV)}$	20	A
Maximum Peak Rectified Forward Current, $f > 15\text{ Hz}$ (Note 1)	I_{FRM}	80	A
Maximum Peak Forward Surge Current, 50 Hz half sine wave 60 Hz half sine wave	I_{FSM}	375	A
		390	
Maximum Forward Voltage $I_F = 5\text{ A}, T_j = 25\text{ }^\circ\text{C}$ $I_F = 20\text{ A}, T_j = 25\text{ }^\circ\text{C}$	V_F	0.84	V
		0.96	
Maximum Reverse Current, $V_R = V_{RRM}, T_j = 25\text{ }^\circ\text{C}$	I_R	25	μA
Maximum Reverse Recovery Time, ($I_F = 0.5\text{ A}, I_R = 1\text{ A}; I_{rr} = 0.25\text{ A}$)	T_{rr}	200	ns
Maximum Thermal Resistance, Junction to Case	$R_{\theta JC}$	1.5	K / W
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	$^\circ\text{C}$
		- 50 to + 200	
		- 50 to + 200	
Storage Temperature Range	T_{STG}	- 50 to + 175	$^\circ\text{C}$

Note : (1) Max. temperature of the case $T_C = 100\text{ }^\circ\text{C}$.

RATING AND CHARACTERISTIC CURVES (SMC2000D)

FIG.1 - RATED FORWARD CURRENT VS. CASE TEMPERATURE

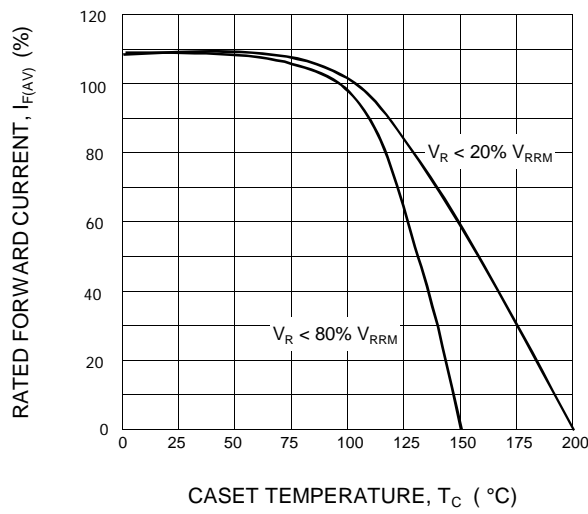


FIG.2 - TYPICAL FORWARD CHARACTERISTICS

