

SMBJ5245

SURFACE MOUNT SILICON ZENER DIODES

V_Z : 15 Volts

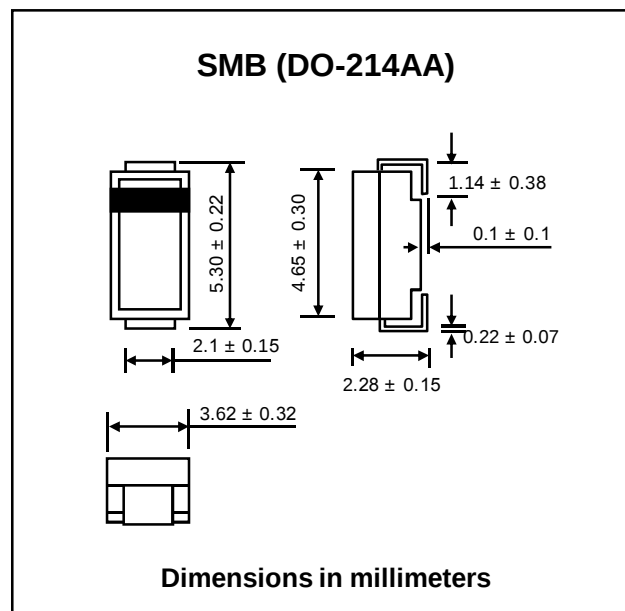
P_D : 1 Watts

FEATURES :

- * Glass passivated junction chip
- * High peak reverse power dissipation
- * High reliability
- * Low leakage current
- * **Pb / RoHS Free**

MECHANICAL DATA

- * Case : SMB (DO-214AA) Molded plastic
- * Epoxy : UL94V-O rate flame retardant
- * Lead : Lead formed for Surface mount
- * Polarity : Color band denotes cathode end
- * Mounting position : Any
- * Weight : 0.093 gram



MAXIMUM RATINGS (Rating at 25 °C ambient temperature unless otherwise specified)

Rating	Symbol	Value	Unit
Maximum Power Dissipation @ T _L = 100 °C	P _D	1.0	W
Derate above 100 °C		20	mW/°C
Maximum Forward Voltage at I _F = 200 mA	V _F	1.1	V
Typical Thermal Resistance, Junction to Lead at mounting plane	R _{θJL}	50	°C/W
Operating and Storage Temperature Range	T _J , T _{STG}	- 55 to + 150	°C

ELECTRICAL CHARACTERISTICS (Rating at 25 °C ambient temperature unless otherwise specified)

Type No.	Nominal ⁽¹⁾ Zener Voltage V _Z @ I _{ZT}	Test Current I _{ZT}	Maximum Zener Impedance A & B Suffix Only (Note 2)		Maximum Reverse Leakage Current			Maximum Temp. coefficient of Zener Voltage (A & B Suffix Only) α _{vz} (% / °C)	
					A,B,C Suffix Only		Non-Suffix		
					I _R @ V _R		I _R @ V _R Use For Suffix A		
					(μA)	(V)			
	(V)	(mA)	(Ω)	(Ω)	(μA)	A	B,C		
SMBJ5245	15	8.5	16	600	0.1	10.5	11	10.0	+0.082

Note :

- (1) The type number shown have a standard tolerance on the nominal zener voltage of ± 20%. Suffix A denotes a ± 10% tolerance, Suffix B denotes a ± 5% tolerance, Suffix C denotes a ± 2% tolerance. The electrical characteristics are measured after allowing the device to stabilize for 20 seconds when mounted on a heat sink.
- (2) The zener impedance is derived from the 60 Hz ac voltage, which results when an ac current having an r.m.s. value equal to 10% of the dc zener current (I_{ZT} or I_{ZK}) is superimposed on I_{ZT} or I_{ZK}. Zener impedance is measured at two points to insure a sharp knee on the breakdown curve, thereby eliminating unstable units.