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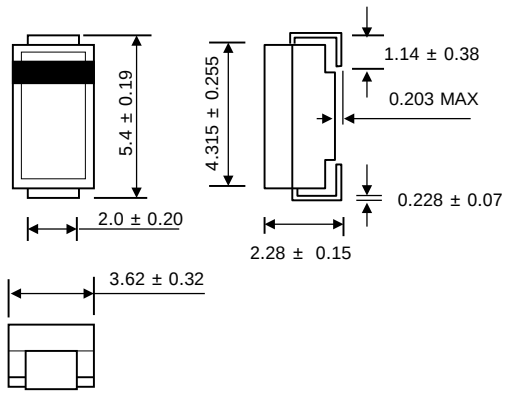
SMBJ5335B - SMBJ5337B SURFACE MOUNT SILICON ZENER DIODES

V_Z : 3.1 - 4.7 Volts
P_D : 5 Watts

FEATURES :
* High peak reverse power dissipation
* High reliability
* Low leakage current
* Pb / RoHS Free

MECHANICAL DATA
* Case : SMB Molded plastic
* Epoxy : UL94V-0 rate flame retardant
* Lead : Lead Formed for Surface Mount
* Polarity : Color band denotes cathode end
* Mounting position : Any
* Weight : 0.108 gram

SMB (DO-214AA)



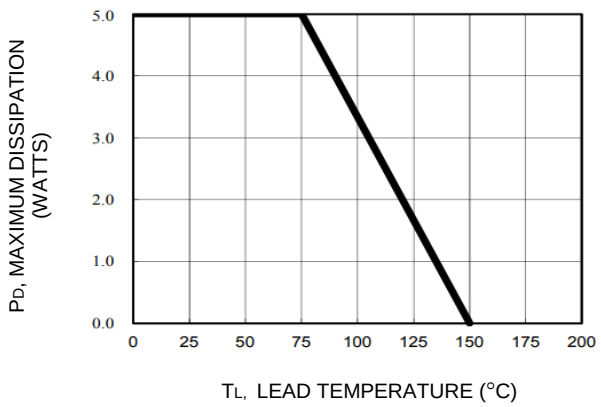
Dimensions in millimeters

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

Rating	Symbol	Value	Unit
Power Dissipation at T_L = 75 °C	P_D	5	W
Maximum Forward Voltage at I_F = 200 mA	V_F	1.2	V
Thermal Resistance, Junction to Ambient (Note 1)	$R_{\Theta JA}$	90	°C/W
Thermal Resistance, Junction to Lead (Note 1)	$R_{\Theta JL}$	25	°C/W
Thermal Resistance, Junction to Case	$R_{\Theta JC}$	40	°C/W
Operating and Storage Temperature Range	T_J, T_{STG}	- 65 to + 150	°C

Note : (1) When mounted on FR4 PC board (1 oz Cu) with recommended footprint.

Fig. 1 POWER DERATING CURVE



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

TYPE	Regulator Voltage		Maximum Zener Impedance			Maximum Reverse Leakage Current		Maximum Zener Current	Maximum Surge Current	Maximum Voltage
	V_Z @ I_{ZT}	I_{ZT}	Z_{ZT} @ I_{ZT}	Z_{ZK} @ I_{ZK}	I_{ZK}	I_R @ V_R		I_{ZM}	I_{ZSM}	Regulator
	(V)	(mA)	(Ω)	(Ω)	(mA)	(μA)	(V)	(mA)	(A)	ΔV_Z
SMBJ5333B	3.3	380	3.0	400	1.0	300.0	1.0	1440	20.0	0.85
SMBJ5334B	3.6	350	2.5	500	1.0	150.0	1.0	1320	18.7	0.80
SMBJ5335B	3.9	320	2.0	500	1.0	50.0	1.0	1220	17.6	0.54
SMBJ5336B	4.3	290	2.0	500	1.0	10.0	1.0	1100	16.4	0.49
SMBJ5337B	4.7	260	2.0	450	1.0	5.0	1.0	1010	15.3	0.44

Notes : (1) Suffix " A " indicates ± 10% tolerance, suffix " B " indicates ± 5% tolerance

(2) The surge current (I_{ZSM}) is specified as the maximum peak of a non- recurrent half-sin wave of 8.3 ms duration.

(3) Voltage regulation (V_Z) is the difference between the voltage measured at 10% and 50% of I_{ZM}

Fig. 2 Temperature Coefficients v.s. Zener Voltage

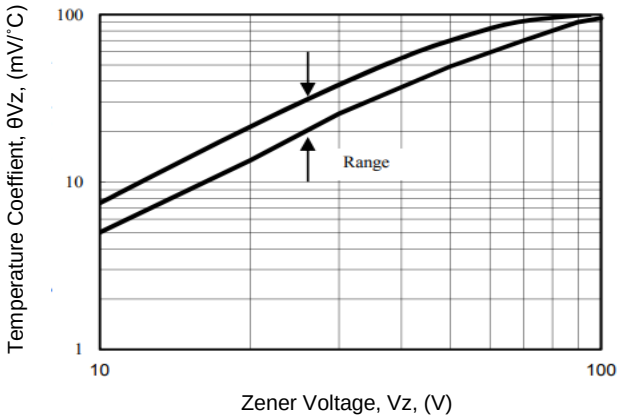


Fig. 3 Maximum Surge Power