

SMA

Features

- High forward surge capability
- Glass passivated junction
- Low Zener Impedance
- Power Dissipation of 3000mW
- High Stability and High Reliability
- Halogen free and RoHS compliant

Mechanical Data

CASE: SMAJ(DO-214AC) Molded Plastic
 Polarity: Color band denotes cathode end
 Mounting position: ANY
 Weight: 0.0025 ounces, 0.071 gram

Summary of Packing Options

Package	Packing Description	Packing Quantity	Industry Standard
SMA	Tape/Reel,7" reel	2000	EIA-481-1

Maximum Ratings & Electrical Characteristics

(Ratings at 25°C ambient temperature unless otherwise specified.)

Rating	Symbol	Value	Unit
DC Power Dissipation at $T_L = 50^\circ\text{C}$ (Note1)	P_d	3	Watts
Maximum Forward Voltage at $I_F = 200\text{ mA}$	V_F	1.2	Volts
Junction Temperature Range	T_J	- 55 to + 150	$^\circ\text{C}$
Storage Temperature Range	T_s	- 55 to + 150	$^\circ\text{C}$

 Note : (1) T_L = Lead temperature at 5.0 mm² (0.013 mm thick) copper land areas.

Electrical Characteristics

(Ratings at 25°C ambient temperature unless otherwise specified.)

TYPE	MARKING	ZENER VOLTAGE RANGE			TEST CURRENT		REVERSE LEAKAGE CURRENT		DYNAMIC RESISTANCE	
		V_z at I_{zT1}			I_{zT1}	I_{zT2}	I_r at V_R		Z_z at I_{zT1}	Z_zK at I_{zT2}
		V			mA	mA	μA	V	Ω	
		MIN.	NOM.	MAX.			MAX.		MAX.	MAX.
1SMA3D3P3	3D3P3	3.1	3.3	3.5	80	1	40	1	20	400
1SMA3D3P6	3D3P6	3.4	3.6	3.8	60	1	20	1	20	500
1SMA3D3P9	3D3P9	3.7	3.9	4.1	60	1	10	1	15	500
1SMA3D4P3	3D4P3	4	4.3	4.6	50	1	3	1	13	500
1SMA3D4P7	3D4P7	4.4	4.7	5	45	1	3	1	13	600
1SMA3D5P1	3D5P1	4.8	5.1	5.4	45	1	1	1.5	10	500
1SMA3D5P6	3D5P6	5.2	5.6	6	45	1	1	2	7	400
1SMA3D6P2	3D6P2	5.8	6.2	6.6	35	1	1	3	4	300
1SMA3D6P8	3D6P8	6.4	6.8	7.2	35	1	1	4	3.5	300
1SMA3D7P5	3D7P5	7	7.5	7.9	35	0.5	1	4.5	3	200
1SMA3D8P2	3D8P2	7.7	8.2	8.7	25	0.5	1	6.2	5	200
1SMA3D9P1	3D9P1	8.5	9.1	9.6	25	0.5	1	6.8	5	200
1SMA3D10	3D10	9.4	10	10.6	25	0.5	0.5	7	7	200
1SMA3D11	3D11	10.4	11	11.6	20	0.5	0.5	8.2	8	300
1SMA3D12	3D12	11.4	12	12.7	20	0.5	0.5	9.1	9	350
1SMA3D13	3D13	12.4	13	14.1	20	0.5	0.5	10	10	400
1SMA3D15	3D15	13.8	15	15.6	15	0.5	0.5	11	15	500
1SMA3D16	3D16	15.3	16	17.1	15	0.5	0.5	12	15	500
1SMA3D18	3D18	16.8	18	19.1	15	0.5	0.5	13	20	500
1SMA3D20	3D20	18.8	20	21.2	10	0.5	0.5	15	24	600

TYPE	MARKING	ZENER VOLTAGE RANGE			TEST CURRENT		REVERSE LEAKAGE CURRENT		DYNAMIC RESISTANCE	
		V _z at I _{zT1}			I _{zT1}	I _{zT2}	I _r at V _r		Z _z at I _{zT1}	Z _{zK} at I _{zT2}
		V			mA	mA	μA	V	Ω	
		MIN.	NOM.	MAX.			MAX.		MAX.	MAX.
1SMA3D22	3D22	20.8	22	23.3	10	0.5	0.5	16	25	600
1SMA3D24	3D24	22.8	24	25.6	10	0.5	0.5	18	25	600
1SMA3D27	3D27	25.1	27	28.9	8	0.25	0.5	20	30	750
1SMA3D30	3D30	28	30	32	8	0.25	0.5	22	30	1000
1SMA3D33	3D33	31	33	35	8	0.25	0.5	24	35	1000
1SMA3D36	3D36	34	36	38	8	0.25	0.5	27	40	1000
1SMA3D39	3D39	37	39	41	6	0.25	0.5	30	50	1000
1SMA3D43	3D43	40	43	46	6	0.25	0.5	33	50	1000
1SMA3D47	3D47	44	47	50	4	0.25	0.5	36	90	1500
1SMA3D51	3D51	48	51	54	4	0.25	0.5	39	115	1500
1SMA3D56	3D56	52	56	60	4	0.25	0.5	43	120	2000
1SMA3D62	3D62	58	62	66	4	0.25	0.5	47	125	2000
1SMA3D68	3D68	64	68	72	4	0.25	0.5	51	130	2000
1SMA3D75	3D75	70	75	79	4	0.25	0.5	56	135	2000
1SMA3D82	3D82	77	82	87	2.7	0.25	0.5	62	200	3000
1SMA3D91	3D91	85	91	96	2.7	0.25	0.5	68	250	3000
1SMA3D100	3D100	95	100	106	2.7	0.25	0.5	75	350	3000

Ratings and Characteristic Curves

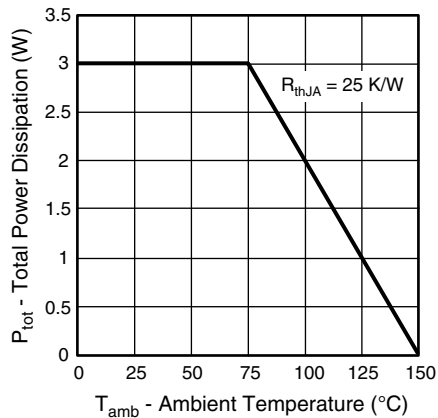


Fig.1 - Total Power Dissipation vs. Ambient Temperature

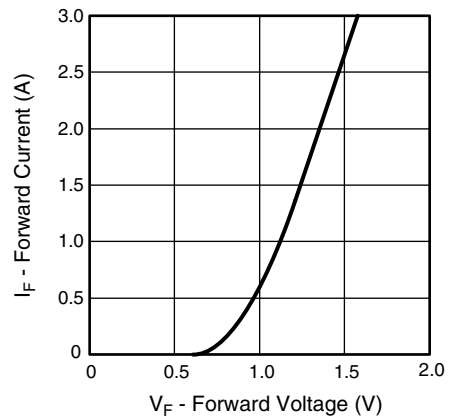


Fig. 2 - Forward Current vs. Forward Voltage

Package Outline Dimensions: SMA(DO-214AC)

Dim	Millimeters		Inches	
	Min	Max	Min	Max
L	4.1	4.3	0.161	0.169
D	2.5	2.7	0.098	0.106
D1	1.3	1.5	0.051	0.059
T	4.8	5.2	0.189	0.205
T1	0.9	1.5	0.035	0.060
d	-	0.2	-	0.008
H	2.05	2.35	0.081	0.093
H1	2.0	2.2	0.079	0.087