

TM

SMA5C3V3 THRU SMA5C39

**3.0 Watt
Surface Mount
Silicon
Zener Diodes**

Features

- Surface Mount Application
- 3.3 thru 39 Volt Voltage Range
- High reliability
- Glass Passivated Junction
- Lead Free Finish/Rohs Compliant (Note1) ("P" Suffix designates Compliant. See ordering information)

Mechanical Data

- Case Material: Molded Plastic. UL Flammability Classification Rating 94V-0 and MSL rating 1
- Terminals solderable per MIL-STD-750, Method 2026
- Polarity is indicated by cathode band.
- Packaging: Standard 12mm Tape (see EIA 481)
- Maximum temperature for soldering: 260 °C for 10 seconds.

Maximum Ratings @ 25°C Unless Otherwise Specified

Maximum Forward Voltage	V_F	1.2V	(Note: 2)
Power Dissipation	P_D	3.0W	(Note:3)
Operation and Storage Temperature	T_J, T_{STG}	-65°C to +150°C	
Thermal Resistance Junction to Lead	R_{thJL}	25°C/W	

NOTES:

1. High Temperature Solder Exemptions Applied, see EU Directive Annex 7.
2. Forward Current @ 200mA.
3. Ambient Temperature at $T_a=60^\circ\text{C}$

DO-214AC (SMA) (LEAD FRAME)

DIM	INCHES		MM		NOTE
	MIN	MAX	MIN	MAX	
A	.079	.096	2.00	2.44	
B	.050	.064	1.27	1.63	
C	.002	.008	.05	.20	
D	---	.02	---	.51	
E	.030	.060	.76	1.52	
F	.065	.091	1.65	2.32	
G	.189	.220	4.80	5.59	
H	.157	.181	4.00	4.60	
J	.090	.115	2.25	2.92	

SUGGESTED SOLDER PAD LAYOUT

SMA5C3V3 thru SMA5C39

Type	Device marking	V_{Znom}	V_{Zmin}	V_{Zmax}	I_{ZT} for r_{zT}		r_{zK} at I_{ZK}		I_R at V_R	
		V	V	V	mA	Ω	Ω	mA	μA	V
SMA5C3V3	C3V3	3.3	3.1	3.5	80	<20	<400	1	<40	1
SMA5C3V6	C3V6	3.6	3.4	3.8	60	<20	<500	1	<20	1
SMA5C3V9	C3V9	3.9	3.7	4.1	60	<15	<500	1	<10	1
SMA5C4V3	C4V3	4.3	4.0	4.6	50	<13	<500	1	<3	1
SMA5C4V7	C4V7	4.7	4.4	5.0	45	<13	<600	1	<3	1
SMA5C5V1	C5V1	5.1	4.8	5.4	45	<10	<500	1	<1	1.5
SMA5C5V6	C5V6	5.6	5.2	6.0	45	<7	<400	1	<1	2
SMA5C6V2	C6V2	6.2	5.8	6.6	35	<4	<300	1	<1	3
SMA5C6V8	C6V8	6.8	6.4	7.2	35	<3.5	<300	1	<1	4
SMA5C7V5	C7V5	7.5	7.0	7.9	35	<3	<200	0.5	<1	4.5
SMA5C8V2	C8V2	8.2	7.7	8.7	25	<5	<200	0.5	<1	6.2
SMA5C9V1	C9V1	9.1	8.5	9.6	25	<5	<200	0.5	<1	6.8
SMA5C10	C10	10	9.4	10.6	25	<7	<200	0.5	<0.5	7
SMA5C11	C11	11	10.4	11.6	20	<8	<300	0.5	<0.5	8.2
SMA5C12	C12	12	11.4	12.7	20	<9	<350	0.5	<0.5	9.1
SMA5C13	C13	13	12.4	14.1	20	<10	<400	0.5	<0.5	10
SMA5C15	C15	15	13.8	15.6	15	<15	<500	0.5	<0.5	11
SMA5C16	C16	16	15.3	17.1	15	<15	<500	0.5	<0.5	12
SMA5C18	C18	18	16.8	19.1	15	<20	<500	0.5	<0.5	13
SMA5C20	C20	20	18.8	21.2	10	<24	<600	0.5	<0.5	15
SMA5C22	C22	22	20.8	23.3	10	<25	<600	0.5	<0.5	16
SMA5C24	C24	24	22.8	25.6	10	<25	<600	0.5	<0.5	18
SMA5C27	C27	27	25.1	28.9	8	<30	<750	0.25	<0.5	20
SMA5C30	C30	30	28	32	8	<30	<1000	0.25	<0.5	22
SMA5C33	C33	33	31	35	8	<35	<1000	0.25	<0.5	24
SMA5C36	C36	36	34	38	8	<40	<1000	0.25	<0.5	27
SMA5C39	C39	39	37	41	6	<50	<1000	0.25	<0.5	30

Ordering Information

Device	Packing
(Part Number)-TP	Tape&Reel;7.5Kpcs/Reel

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