

# 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

- Halogen free available upon request by adding suffix "-HF"
- Epoxy meets UL 94 V-0 flammability rating
- Moisture Sensitivity Level 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.

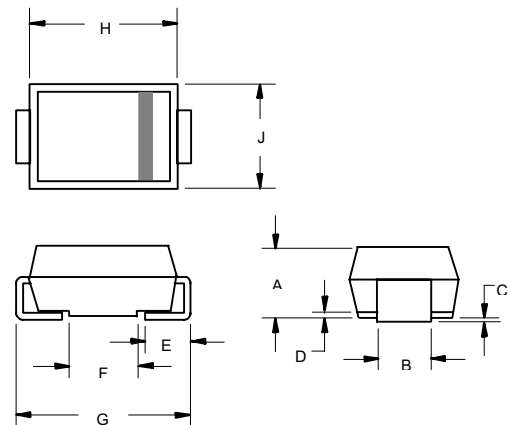
### Maximum Ratings @ 25°C Unless Otherwise Specified

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:

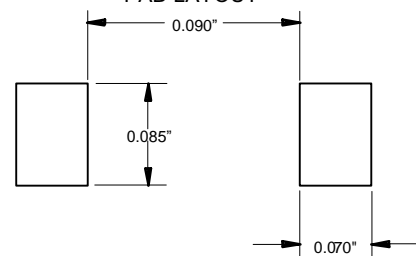
1. High Temperature Solder Exemptions Applied, see EU Directive Annex 7.
2. Forward Current @ 200mA.
3. Ambient Temperature at  $T_a=60^\circ\text{C}$

### 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 $V_R$	$V_R$	
		V	V	V	mA	$\Omega$	$\Omega$	mA	$\mu A$	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



ZIBO MICRO COMMERCIAL  
COMPONENTS CORP.

### Ordering Information :

Device	Packing
Part Number-TP	Tape&Reel: 7.5Kpcs/Reel

Note : Adding "-HF" suffix for halogen free, eg. Part Number-TP-HF

**\*\*\*LIFE SUPPORT\*\*\***

ZBMCC's products are not authorized for use as critical components in life support devices or systems without the express written approval of ZiBo Micro Commercial Components Corp.

**\*\*\*CUSTOMER AWARENESS\*\*\***

Counterfeiting of semiconductor parts is a growing problem in the industry. ZiBo Micro Commercial Components Corp. is taking strong measures to protect ourselves and our customers from the proliferation of counterfeit parts. ZBMCC strongly encourages customers to purchase ZBMCC parts either directly from ZBMCC or from Authorized ZBMCC Distributors who are listed by country on our web page cited below. Products customers buy either from ZBMCC directly or from Authorized ZBMCC Distributors are genuine parts, have full traceability, meet ZBMCC's quality standards for handling and storage. ZBMCC will not provide any warranty coverage or other assistance for parts bought from Unauthorized Sources. ZBMCC is committed to combat this global problem and encourage our customers to do their part in stopping this practice by buying direct or from authorized distributors.