

### Features

- Planar Die Construction.
- Zener Voltages From 2.4V~75V.
- Ideally Suited For Automated Assembly Processes.



Lead-free

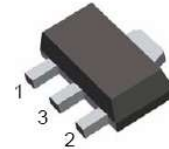
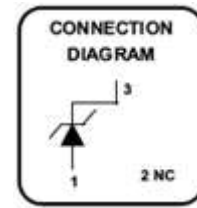


### Typical Applications

- Surface mount zener diode

### Mechanical Data

- Case: SOT-89
- Molding compound, UL flammability classification rating 94V-0.
- Terminals: Tin plated leads, solderable per MIL-STD-202, Method 208.



RDXXP  
SOT-89

### Ordering Information

Part Number	Package	Shipping	Marking Code
RDXXP□	SOT-89	1000/Tape Reel	See Table on page2

□: none is for Lead Free package;

“G” is for Halogen Free package.

### Maximum Ratings (@T<sub>A</sub>=25°C unless otherwise specified)

Characteristic	Symbol	Value	Units
Forward Voltage@I <sub>F</sub> =10mA	V <sub>F</sub>	0.9	V
Power Dissipation	P <sub>d</sub> *	1	W

### Thermal Characteristics

Parameter	Symbol	Value	Units
Typical Thermal Resistance per leg	R <sub>θJA</sub> *	125	°C/W
Junction temperature	T <sub>J</sub>	150	°C
Storage and operating temperature	T <sub>STG</sub> T <sub>amb</sub>	-55 to+150	°C

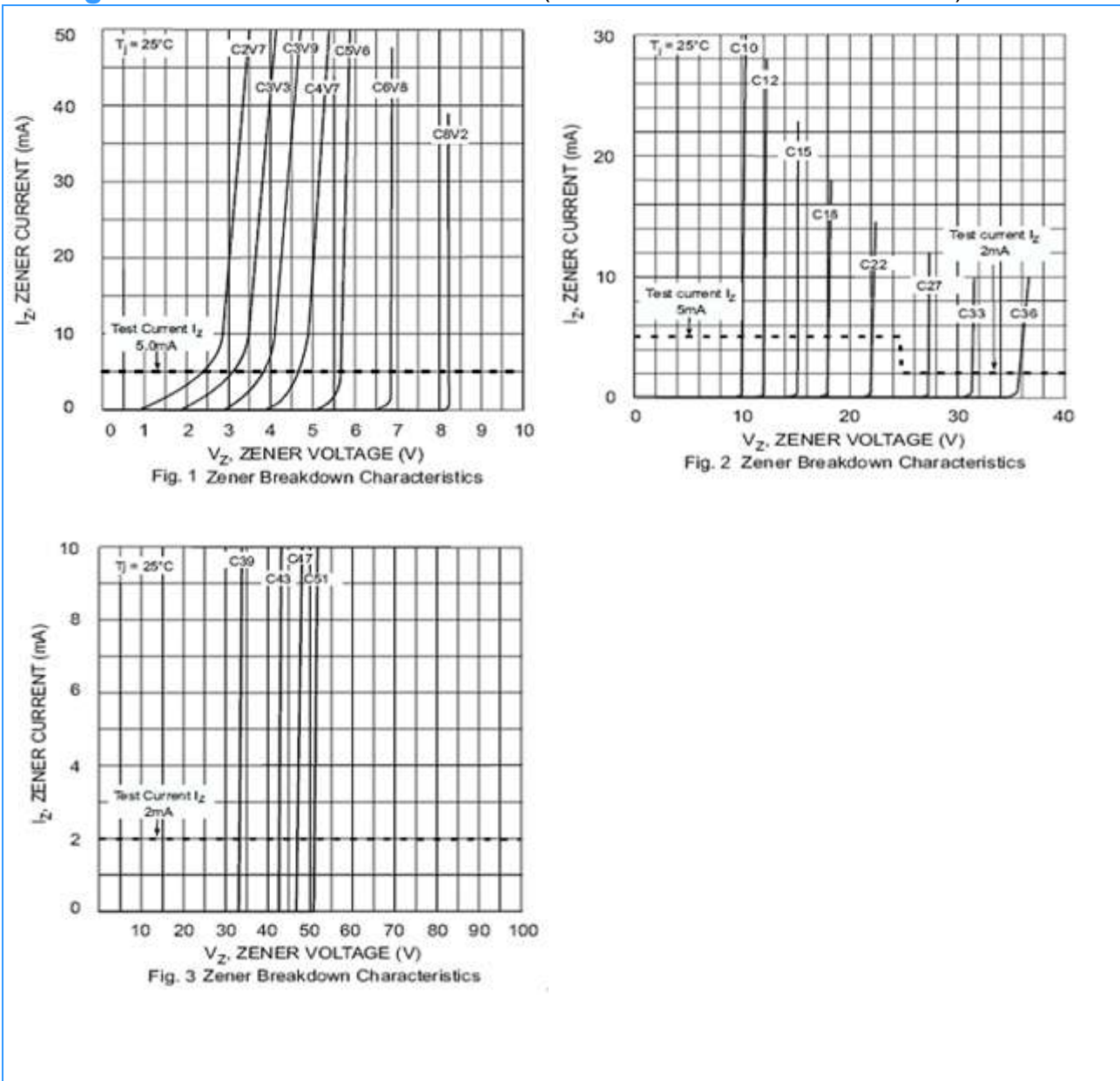
\* Part mounted on PCB board 20mm\*30mm\*1.6mm

### Electrical Characteristics (@T<sub>A</sub>=25°C unless otherwise specified)

Type Number	Marking Code	Zener Voltage Range			Maximum Zener Impedance			Maximum Reverse Current		Typical Temperature Coefficient @I <sub>ZT</sub> mV/°C		
		V <sub>Z</sub> @I <sub>ZT</sub>			I <sub>ZT</sub>	Z <sub>ZT</sub> @I <sub>ZT</sub>	Z <sub>ZK</sub> @I <sub>ZK</sub>		I <sub>R</sub>	V <sub>R</sub>	Min	Max
		Nom(V)	Min(V)	Max(V)	(mA)	(Ω)	(Ω)	(mA)	(μA)	(V)		
RD2.4P	2.4P	2.4	2.2	2.6	5.0	100	600	1.0	50	1.0	-3.5	0
RD2.7P	2.7P	2.7	2.5	2.9	5.0	100	600	1.0	20	1.0	-3.5	0
RD3.0P	3.0P	3.0	2.8	3.2	5.0	95	600	1.0	10	1.0	-3.5	0
RD3.3P	3.3P	3.3	3.1	3.5	5.0	95	600	1.0	5.0	1.0	-3.5	0
RD3.6P	3.6P	3.6	3.4	3.8	5.0	90	600	1.0	5.0	1.0	-3.5	0
RD3.9P	3.9P	3.9	3.7	4.1	5.0	90	600	1.0	3.0	1.0	-3.5	0
RD4.3P	4.3P	4.3	4.0	4.6	5.0	90	600	1.0	3.0	1.0	-3.5	0
RD4.6P	4.6P	4.6	4.3	4.9	5.0	90	600	1.0	3.0	1.0	-3.5	0
RD4.7P	4.7P	4.7	4.4	5.0	5.0	80	500	1.0	3.0	2.0	-3.5	0.2
RD5.1P	5.1P	5.1	4.8	5.4	5.0	60	480	1.0	2.0	2.0	-2.7	1.2
RD5.6P	5.6P	5.6	5.2	6.0	5.0	40	400	1.0	1.0	2.0	-2.0	2.5
RD6.2P	6.2P	6.2	5.8	6.6	5.0	10	150	1.0	3.0	4.0	0.4	3.7
RD6.8P	6.8P	6.8	6.4	7.2	5.0	15	80	1.0	2.0	4.0	1.2	4.5
RD7.5P	7.5P	7.5	7.0	7.9	5.0	15	80	1.0	1.0	5.0	2.5	5.3
RD8.2P	8.2P	8.2	7.7	8.7	5.0	15	80	1.0	0.7	5.0	3.2	6.2
RD9.1P	9.1P	9.1	8.5	9.6	5.0	15	100	1.0	0.5	6.0	3.8	7.0
RD10P	10P	10	9.4	10.6	5.0	20	150	1.0	0.2	7.0	4.5	8.0
RD11P	11P	11	10.4	11.6	5.0	20	150	1.0	0.1	8.0	5.4	9.0
RD12P	12P	12	11.4	12.7	5.0	25	150	1.0	0.1	8.0	6.0	10.0
RD13P	13P	13	12.4	14.1	5.0	30	170	1.0	0.1	8.0	7.0	11.0
RD15P	15P	15	13.8	15.6	5.0	30	200	1.0	0.1	10.5	9.2	13.0
RD16P	16P	16	15.3	17.1	5.0	40	200	1.0	0.1	11.2	10.4	14.0

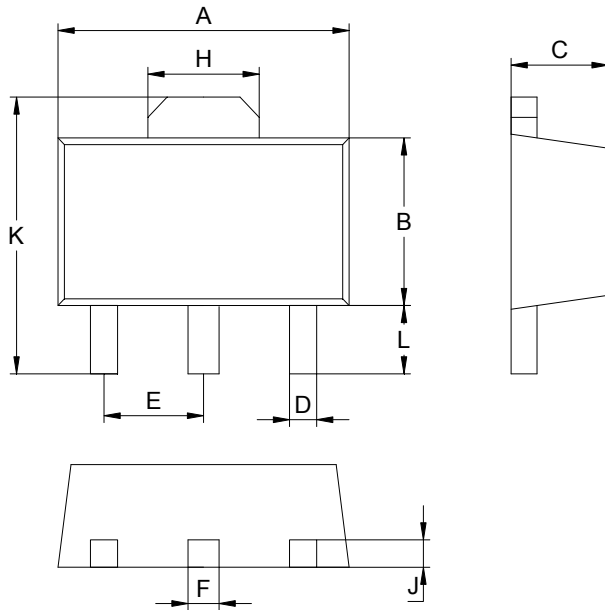
Type Number	Type Number	Zener Voltage Range				Maximum Zener Impedance			Maximum Reverse Current		Typical Temperature Coefficient @I <sub>ZT</sub> mV/°C	
		V <sub>Z</sub> @I <sub>ZT</sub>			I <sub>ZT</sub>	Z <sub>ZT</sub> @I <sub>ZT</sub>	Z <sub>ZK</sub> @I <sub>ZK</sub>		I <sub>R</sub>	V <sub>R</sub>	Min	Max
		Nom(V)	Min(V)	Max(V)	(mA)	(Ω)	(Ω)	(mA)	(μA)	(V)		
RD18P	18P	18	16.8	19.1	5.0	45	225	1.0	0.1	12.6	12.4	16.0
RD20P	20P	20	18.8	21.2	5.0	55	225	1.0	0.1	14.0	14.4	18.0
RD22P	22P	22	20.8	23.3	5.0	55	250	1.0	0.1	15.4	16.4	20.0
RD24P	24P	24	22.8	25.6	5.0	70	250	1.0	0.1	16.8	18.4	22.0
RD27P	27P	27	25.1	28.9	2.0	80	300	0.5	0.1	18.9	21.4	25.3
RD30P	30P	30	28.0	32.0	2.0	80	300	0.5	0.1	21.0	24.4	29.4
RD33P	33P	33	31.0	35.0	2.0	80	325	0.5	0.1	23.1	27.4	33.4
RD36P	36P	36	34.0	38.0	2.0	90	350	0.5	0.1	25.2	30.4	37.4
RD39P	39P	39	37.0	41.0	2.0	130	350	0.5	0.1	27.3	33.4	41.2
RD43P	43P	43	40.0	46.0	2.0	150	375	0.5	0.1	30.1	10.0	12.0
RD47P	47P	47	44.0	50.0	2.0	170	375	0.5	0.1	32.9	10.0	12.0
RD51P	51P	51	48.0	54.0	2.0	180	400	0.5	0.1	35.7	10.0	12.0
RD56P	56P	56.0	52.0	60	2.0	200	425	0.5	0.05	39.2	10.0	12.0
RD62P	62P	62.0	58.0	66.0	2.0	215	450	0.5	0.05	43.4	10.0	12.0
RD68P	68P	68.0	64.0	72.0	2.0	240	475	0.5	0.05	47.6	10.0	12.0
RD75P	75P	75.0	70.0	79.0	2.0	255	500	0.5	0.05	52.5	10.0	12.0

**Ratings and Characteristic Curves** ( $T_A=25^\circ\text{C}$  unless otherwise noted)



Package Outline Dimensions(unit:mm)

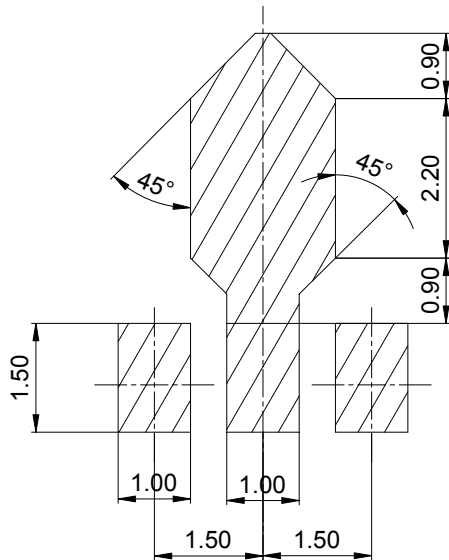
SOT-89



SOT-89		
Dim	Min	Max
A	4.30	4.70
B	2.25	2.65
C	1.30	1.70
D	0.30	0.50
E	1.40	1.60
F	0.38	0.58
H	1.60	1.80
J	0.30	0.50
L	0.90	1.10
K	3.95	4.35

Mounting Pad Layout(unit:mm)

SOT-89



IMPORTANT NOTICE

Galaxy Microelectronics (GME) reserves the right to make changes without further notice to any product herein to make corrections, modifications, improvements, or other changes. GME does not assume any liability arising out of the application or use of any product described herein; neither does it convey any license under its patent rights, nor the rights of others.