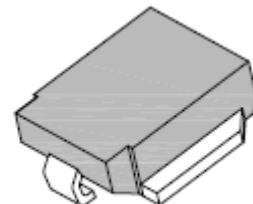


## 5W Surface Mount Zener Diode

### Features

- High surge power withstanding capabilities that absorb load dump surge
- Excellent surge responsibility for steep surge absorption
- Surface mount type is available for easy applications
- Corresponds to taping packages
- Automotive AEC Q101 Qualified
- MSL Level 1 guaranteed ( $T_{peak} = 260\text{ }^{\circ}\text{C}$ )
- RoHS compliant



DO-218



### Mechanical Data

<b>Case:</b>	DO-218 molded plastic body,
<b>Epoxy:</b>	Plastic package has UL flammability classification 94V-0
<b>Terminals:</b>	Plated, solderable per MIL-STD-750, Method 2026
<b>Polarity:</b>	Color band denotes cathode end
<b>Weight:</b>	0.091 ounce, 2.58gram

### Maximum Ratings ( $T_{Ambient} = 25^{\circ}\text{C}$ unless noted otherwise)

Symbol	Description	Value	Unit	Conditions
<b>P<sub>D</sub></b>	Allowable Power Dissipation	5	W	T <sub>L</sub> =25°C
<b>I<sub>RSM</sub></b>	Non-Repetitive Peak Reverse Surge Current (Refer Fig.1)	Z5W27M	70	A
		Z5W37M	62	A
<b>T<sub>J</sub></b>	Junction Temperature Range	-55 to 175	°C	
<b>T<sub>STG</sub></b>	Storage Temperature Range	-40 to 150	°C	

# 5W Surface Mount Zener Diode

## Z5W27M/Z5W37M

### Electrical Characteristics ( $T_a=25^\circ\text{C}$ unless noted otherwise)

Symbol	Description		Min.	Typ.	Max.	Unit	Conditions
<b>V<sub>Z</sub></b>	Zener Voltage	Z5W27M	24	27	30	V	I <sub>Z</sub> =10mA
		Z5W37M	34	37	40		I <sub>Z</sub> =10mA
<b>R<sub>D</sub></b>	Operating Resistance		-	-	30	Ω	I <sub>Z</sub> =10mA
<b>α<sub>T</sub></b>	Temperature Coefficient	Z5W27M	-	23	36	mV/°C	I <sub>Z</sub> =10mA
		Z5W37M	-	31	49		I <sub>Z</sub> =10mA
<b>V<sub>F</sub></b>	Forward Voltage		-	-	1.0	V	I <sub>F</sub> =6A
			-	-	1.2		I <sub>F</sub> =100A
<b>I<sub>R</sub></b>	Reverse Current	Z5W27M	-	-	10	μA	V <sub>R</sub> =22V
		Z5W37M	-	-	10		V <sub>R</sub> =32V

### Typical Characteristics Curves

Fig.1- I<sub>RSM</sub> - t

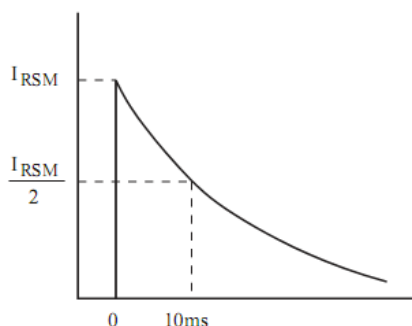
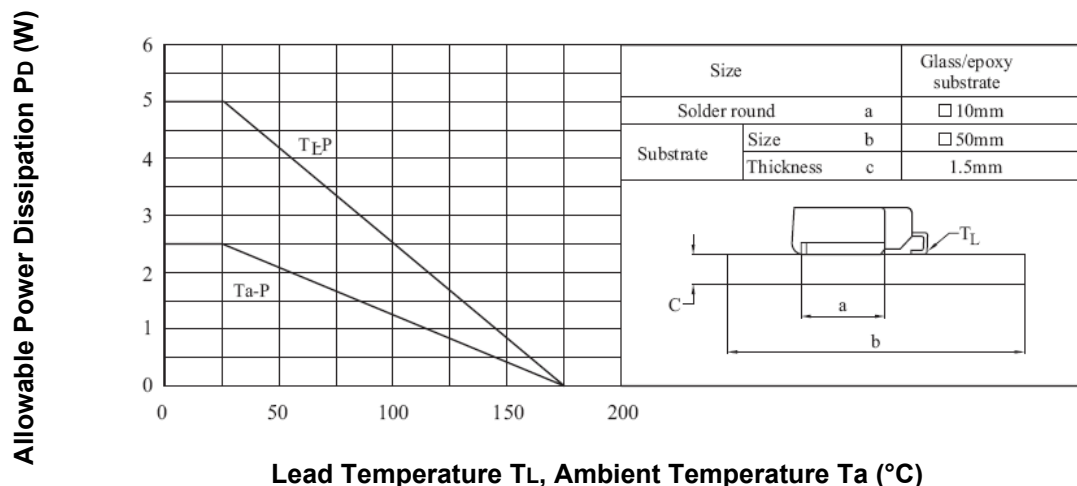


Fig.2- P<sub>D</sub> -T<sub>L</sub>, T<sub>a</sub>



# 5W Surface Mount Zener Diode

## Z5W27M/Z5W37M

Fig.3-  $I_z - V_z$  for Z5W27M

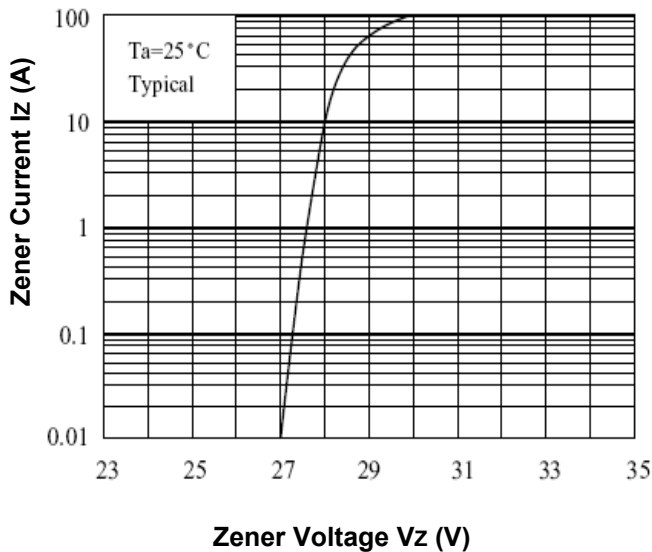


Fig.4-  $I_z - V_z$  for Z5W37M

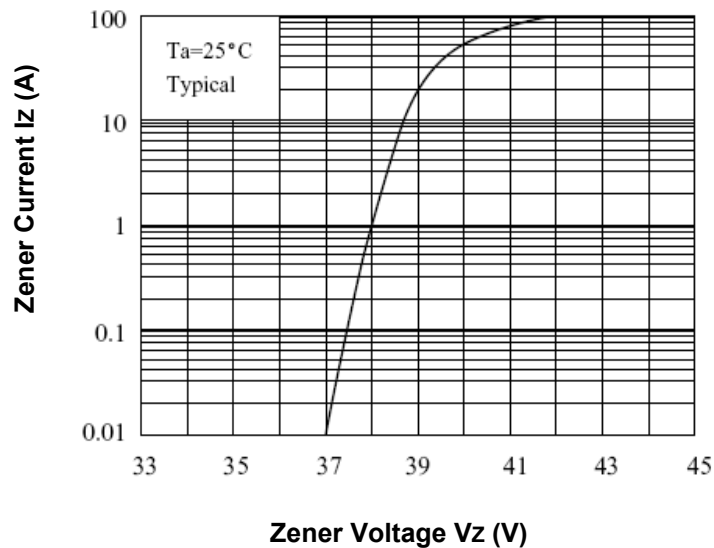


Fig.5-  $P_{RSM} - t_w$

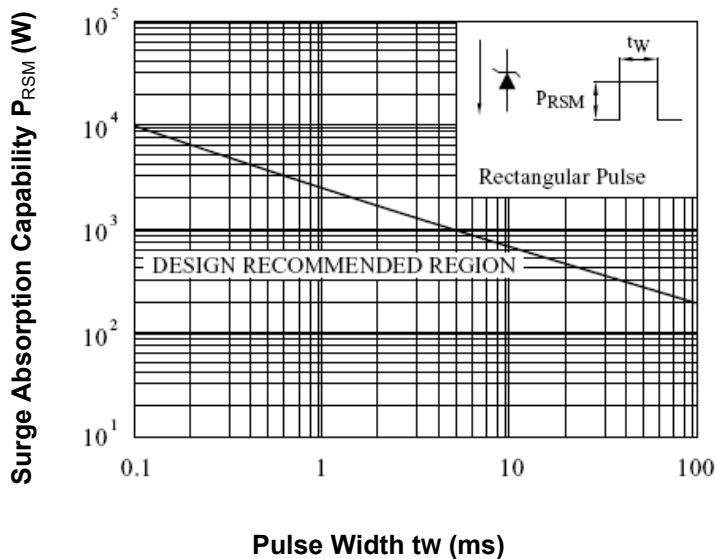
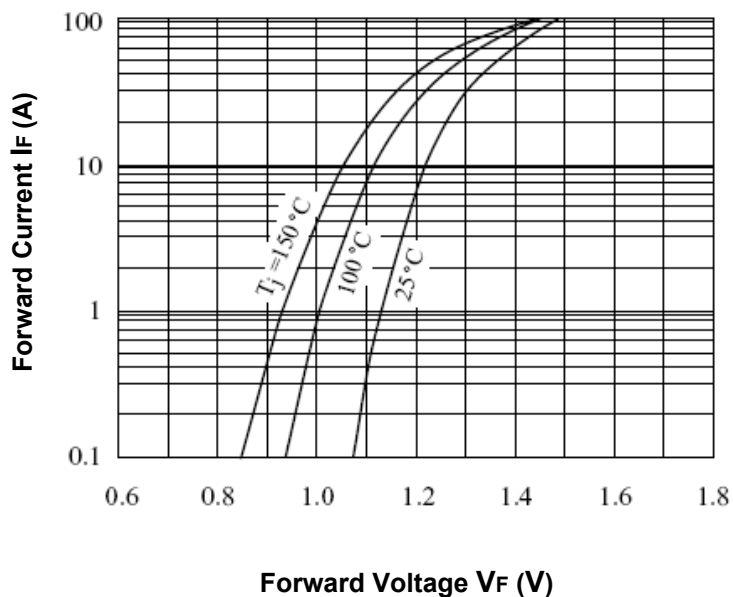


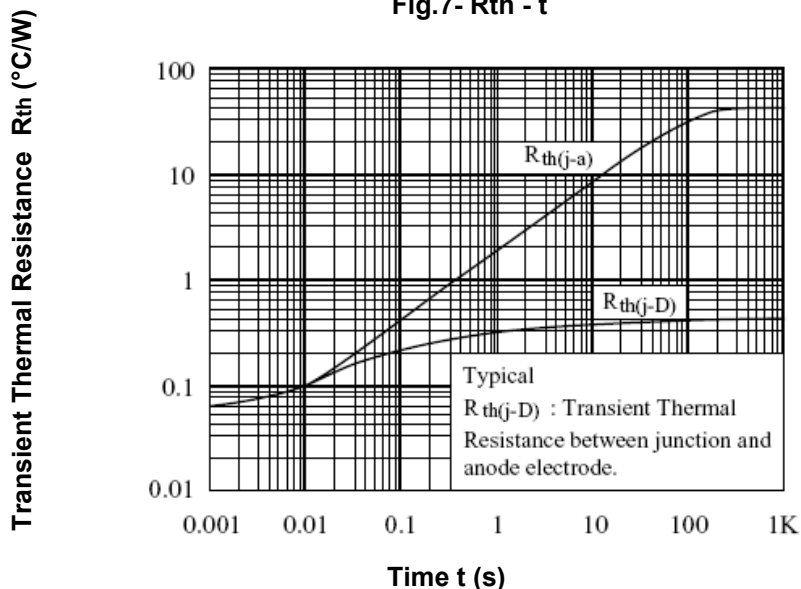
Fig.6-  $I_F - V_F$



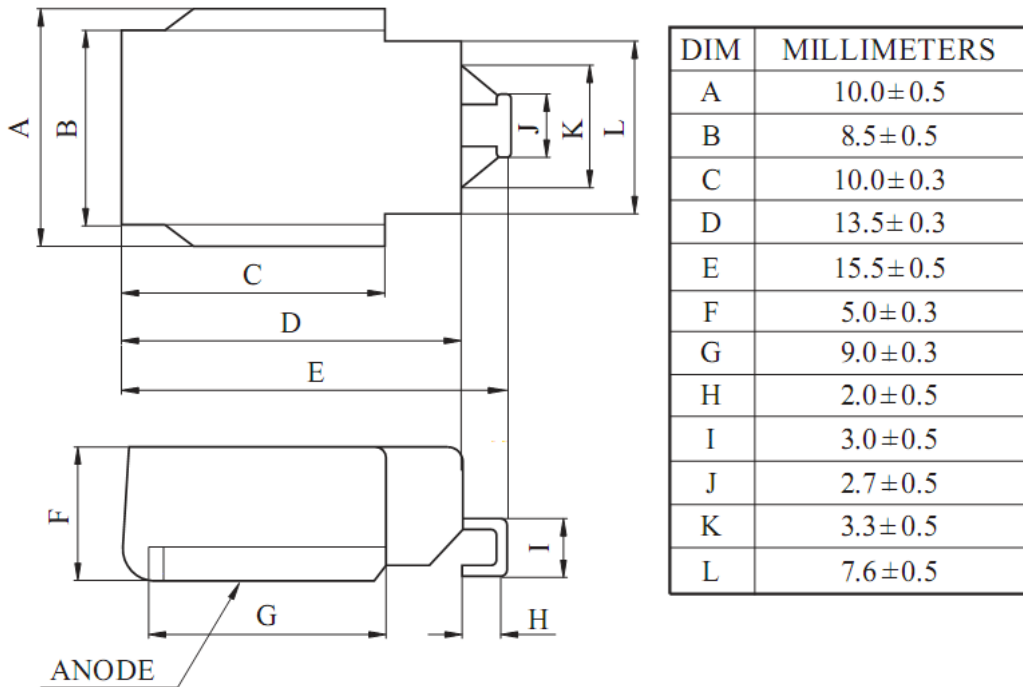
# 5W Surface Mount Zener Diode

## Z5W27M/Z5W37M

Fig.7- Rth - t



### Dimensions in mm



DO-218

# 5W Surface Mount Zener Diode

## Z5W27M/Z5W37M

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