

# Z1220A ~ Z1300A

**V<sub>Z</sub> : 220 - 300 Volts**  
**P<sub>D</sub> : 1 Watt**

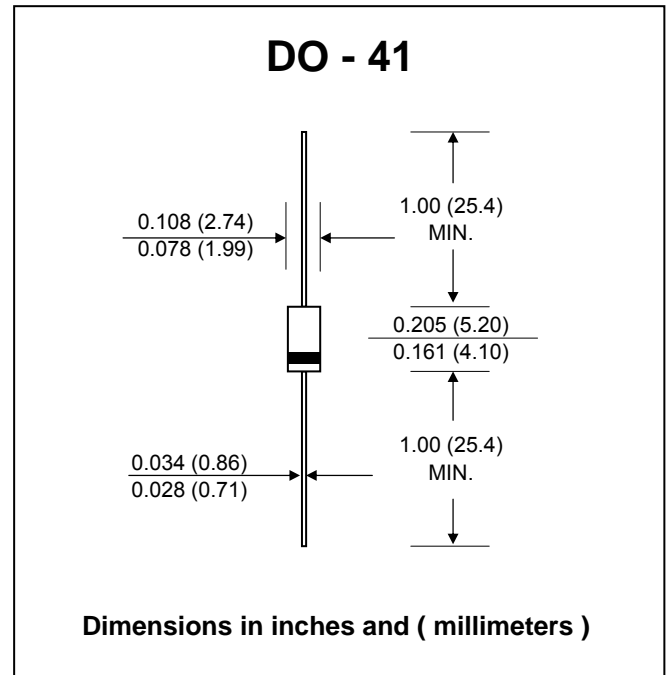
## FEATURES :

- \* Complete voltage range 220 to 300 Volts
- \* High peak reverse power dissipation
- \* High reliability
- \* Low leakage current
- \* **Pb / RoHS Free**

## MECHANICAL DATA

- \* Case : DO-41 Molded plastic
- \* Epoxy : UL94V-O rate flame retardant
- \* Lead : Axial lead solderable per MIL-STD-202, method 208 guaranteed
- \* Polarity : Color band denotes cathode end
- \* Mounting position : Any
- \* Weight : 0.335 gram

# SILICON ZENER DIODES



## MAXIMUM RATINGS

Rating at 25 °C ambient temperature unless otherwise specified

Rating	Symbol	Value	Unit
DC Power Dissipation at T <sub>L</sub> = 50 °C (Note1)	P <sub>D</sub>	1.0	W
Maximum Forward Voltage at I <sub>F</sub> = 200 mA	V <sub>F</sub>	2.0	V
Maximum Thermal Resistance Junction to Ambient Air (Note2)	R <sub>θJA</sub>	170	K / W
Junction Temperature Range	T <sub>J</sub>	- 55 to + 175	°C
Storage Temperature Range	T <sub>STG</sub>	- 55 to + 175	°C

## ELECTRICAL CHARACTERISTICS (Rating at 25 °C ambient temperature unless otherwise specified)

Type No. (Note 3)	Nominal Zener Voltage		Maximum Zener Impedance			Maximum Reverse Leakage Current		Maximum DC Zener Current	Maximum Surge Current
	V <sub>Z</sub> @ I <sub>ZT</sub> (V)	I <sub>ZT</sub> (mA)	Z <sub>ZT</sub> @ I <sub>ZT</sub> (Ω)	Z <sub>ZK</sub> @ I <sub>ZK</sub> (Ω)	I <sub>ZK</sub> (mA)	I <sub>R</sub> @ V <sub>R</sub> (μA)	V <sub>R</sub> (V)	I <sub>ZM</sub> (mA)	I <sub>RM</sub> <sup>(4)</sup> (mApk)
<b>Z1220A</b>	220	1.00	1600	8000	0.25	5.0	167.2	4.0	20
<b>Z1240A</b>	240	0.93	1800	8500	0.25	5.0	182.4	3.8	19
<b>Z1250A</b>	250	0.90	2000	9000	0.25	5.0	190	3.6	18
<b>Z1270A</b>	270	0.82	2100	9000	0.25	5.0	205	3.3	16
<b>Z1300A</b>	300	0.75	2300	9500	0.25	5.0	228	3.0	15

### Notes :

- (1) T<sub>L</sub> = Lead temperature at 3/8 " (9.5mm) from body
- (2) Valid provided that leads are kept at ambient temperature at a distance of 10 mm from case.
- (3) The type number listed have a standard tolerance on the nominal zener voltage of ± 5%.  
No suffix indicates ± 10% tolerance, suffix "C" indicates ± 2% tolerance.
- (4) The reverse surge current is a non-repetitive, 8.3ms pulse width square wave or equivalent sine-wave superimposed on I<sub>ZT</sub> per JEDEC Method