

TYPES 1N761 THRU 1N769 SILICON VOLTAGE-REGULATOR DIODES

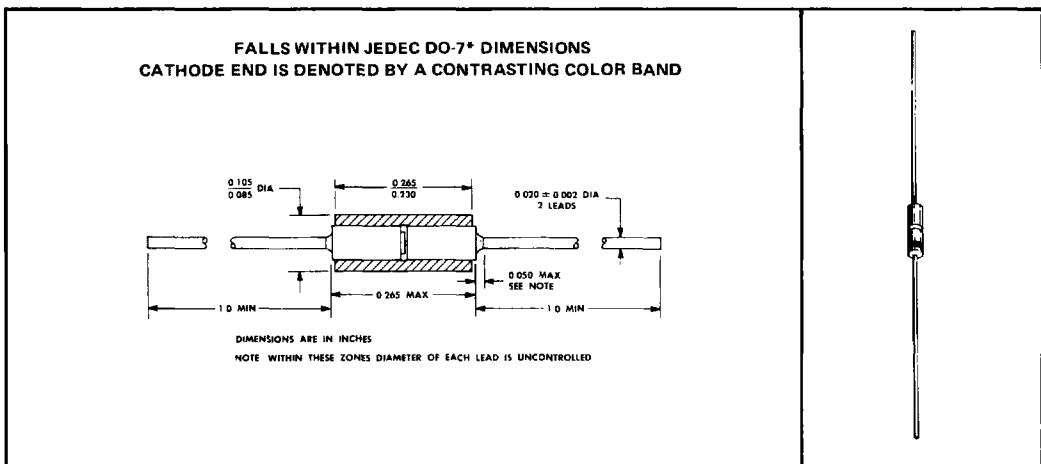
BULLETIN NO. DL-S 7311940, MARCH 1973

$V_Z \dots 4.85 \text{ V to } 23.5 \text{ V}$
 $P_D \dots 400 \text{ mW}$

- Tolerances Range from 9% to 15%
- Rugged Double-Plug Construction

mechanical data

Double-plug construction affords integral positive contacts by means of a thermal compression bond. Moisture-free stability is ensured through hermetic sealing. The coefficients of thermal expansion of the glass case and the dumet plugs are closely matched to allow extreme temperature excursions. Hot-solder-dipped leads are standard.



absolute maximum ratings

TYPE	I_{ZM} Steady-State Regulator Current $T_A < 25^\circ \text{C}$		I_{ZM} Steady-State Regulator Current $T_A = 125^\circ \text{C}$		P Dissipation $T_A < 25^\circ \text{C}$ (See Note 1)	T_{stg} Storage Temperature Range		T_L Lead Temperature* (See Note 2)
	TI Nominal†	JEDEC Value*	TI Nominal†	JEDEC Value*		TI Value‡	JEDEC Value*	
	1N761	74 mA	50 mA	24 mA		10 mA	400 mW ‡ 250 mW*	
1N762	62 mA	40 mA	20 mA	8 mA				
1N763	50 mA	30 mA	16 mA	6 mA				
1N764	40 mA	25 mA	13 mA	5 mA				
1N765	33 mA	20 mA	11 mA	4 mA				
1N766	27 mA	17 mA	9 mA	3.5 mA				
1N767	22 mA	14 mA	7 mA	3 mA				
1N768	19 mA	12 mA	6 mA	2.5 mA				
1N769	15 mA	10 mA	5 mA	2 mA				

NOTES: 1. For operation above 25°C free-air temperature, refer to Dissipation Derating Curve, Figure 1.
2. This value applies 1/8 inch from the case for B seconds.

*JEDEC registered data. This data sheet contains all applicable registered data in effect at the time of publication.

†The nominal I_{ZM} currents shown are applicable to devices having regulator voltages at the upper limit of the range specified for each type. These values do not represent absolute limits. The actual steady-state current-voltage product must not exceed the power rating shown in Figure 1.

‡This value is guaranteed by Texas Instruments in addition to the JEDEC registered value which is also shown.

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*electrical characteristics at 25°C free-air temperature

CHARACTERISTICS					
PARAMETER	V_Z Regulator Voltage			Z_z Small-Signal Regulator Impedance	TEST CURRENT
TEST CONDITIONS	$I_R = I_Z(T)$			$I_R = I_Z(T),$ $I_T = 10\% I_Z(T),$ $f \approx 60 \text{ Hz}$	$I_Z(T)$
LIMIT	MIN	NOM	MAX	MAX	
UNIT	V	V	V	Ω	mA
1N761	4.3	4.85	5.4	40	10
1N762	5.2	5.80	6.4	18	10
1N763	6.2	7.10	8.0	7	10
1N764	7.5	8.75	10.0	12	10
1N765	9.0	10.50	12.0	45	5
1N766	11.0	12.75	14.5	55	5
1N767	13.5	15.75	18.0	70	5
1N768	17.0	19.00	21.0	100	5
1N769	20.0	23.50	27.0	150	5

*JEDEC registered data (nominal values excluded).

THERMAL CHARACTERISTICS

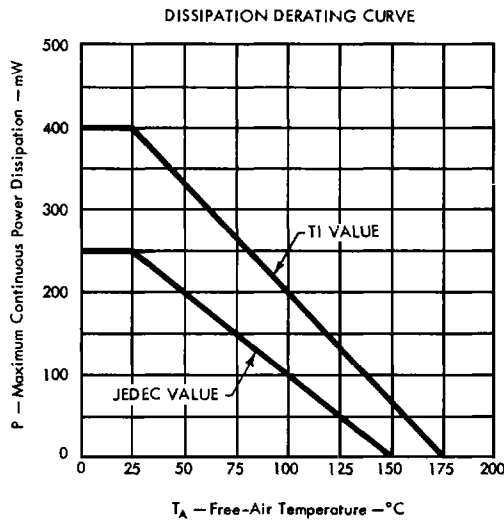


FIGURE 1