

1N5283 THRU 1N5314

SILICON CURRENT LIMITING DIODE



www.centrasemi.com

**DESCRIPTION:**

The CENTRAL SEMICONDUCTOR 1N5283 series types are silicon field effect current regulator diodes designed for applications requiring a constant current over a wide voltage range. These devices are manufactured in the cost effective DO-35 double plug case which provides many benefits to the user, including space savings and improved thermal characteristics. Special selections of  $I_p$  (regulator current) are available for critical applications.



DO-35 CASE

**FEATURES:**

- High Reliability
- Superior Lot To Lot Consistency
- Special Selections Available
- Surface Mount Devices Available

**MAXIMUM RATINGS:** ( $T_L=75^\circ\text{C}$ )

Peak Operating Voltage  
 Power Dissipation  
 Operating and Storage Junction Temperature

**SYMBOL**

$P_{OV}$  100  
 $P_D$  600  
 $T_J, T_{stg}$  -65 to +200

**UNITS**

V  
 mW  
 $^\circ\text{C}$

**ELECTRICAL CHARACTERISTICS:** ( $T_A=25^\circ\text{C}$ )

Type	Regulator Current (Note 1) $I_p @ V_T=25\text{V}$			Minimum Dynamic Impedance $Z_T @ V_T=25\text{V}$	Minimum Knee Impedance $Z_K @ V_K=6.0\text{V}$	Maximum Limiting Voltage $V_L @ I_L=0.8 \times I_p \text{ MIN}$
	MIN mA	NOM mA	MAX mA	MΩ	MΩ	V
1N5283	0.198	0.22	0.242	25	2.75	1.0
1N5284	0.216	0.24	0.264	19	2.35	1.0
1N5285	0.243	0.27	0.297	14	1.95	1.0
1N5286	0.270	0.30	0.330	9.0	1.60	1.0
1N5287	0.297	0.33	0.363	6.6	1.35	1.0
1N5288	0.351	0.39	0.429	4.1	1.00	1.05
1N5289	0.387	0.43	0.473	3.3	0.87	1.05
1N5290	0.423	0.47	0.517	2.7	0.75	1.05
1N5291	0.504	0.56	0.616	1.90	0.56	1.10
1N5292	0.558	0.62	0.682	1.55	0.47	1.13
1N5293	0.612	0.68	0.748	1.35	0.40	1.15
1N5294	0.675	0.75	0.825	1.15	0.335	1.20
1N5295	0.738	0.82	0.902	1.00	0.29	1.25
1N5296	0.819	0.91	1.001	0.88	0.24	1.29
1N5297	0.900	1.00	1.10	0.80	0.205	1.35
1N5298	0.990	1.10	1.21	0.70	0.18	1.40

Notes: (1) Pulsed Method: Pulse Width (ms) = 27.5 divided by  $I_p$  NOM (mA)

R3 (24-May 2010)

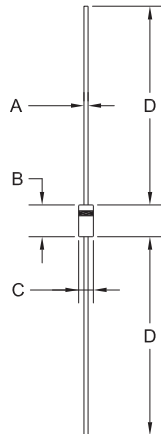
**1N5283 THRU 1N5314**  
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**ELECTRICAL CHARACTERISTICS - Continued:** ( $T_A=25^\circ\text{C}$ )

Type	Regulator Current (Note 1) $I_P @ V_T=25V$			Minimum Dynamic Impedance $Z_T @ V_T=25V$	Minimum Knee Impedance $Z_K @ V_K=6.0V$	Maximum Limiting Voltage $V_L @ I_L=0.8 \times I_P \text{ MIN}$
	MIN mA	NOM mA	MAX mA	$M\Omega$	$M\Omega$	V
1N5299	1.08	1.20	1.32	0.640	0.155	1.45
1N5300	1.17	1.30	1.43	0.580	0.135	1.50
1N5301	1.26	1.40	1.54	0.540	0.115	1.55
1N5302	1.35	1.50	1.65	0.510	0.105	1.60
1N5303	1.44	1.60	1.76	0.475	0.092	1.65
1N5304	1.62	1.80	1.98	0.420	0.074	1.75
1N5305	1.80	2.00	2.20	0.395	0.061	1.85
1N5306	1.98	2.20	2.42	0.370	0.052	1.95
1N5307	2.16	2.40	2.64	0.345	0.044	2.00
1N5308	2.43	2.70	2.97	0.320	0.035	2.15
1N5309	2.70	3.00	3.30	0.300	0.029	2.25
1N5310	2.97	3.30	3.63	0.280	0.024	2.35
1N5311	3.24	3.60	3.96	0.265	0.020	2.50
1N5312	3.51	3.90	4.29	0.255	0.017	2.60
1N5313	3.87	4.30	4.73	0.245	0.014	2.75
1N5314	4.23	4.70	5.17	0.235	0.012	2.90

**DO-35 CASE - MECHANICAL OUTLINE**



SYMBOL	INCHES		MILLIMETERS	
	MIN	MAX	MIN	MAX
A	0.018	0.022	0.46	0.56
B	0.120	0.200	3.05	5.08
C	0.060	0.090	1.52	2.29
D	1.000	-	25.40	-

DO-35 (REV: R1)

R1

R3 (24-May 2010)