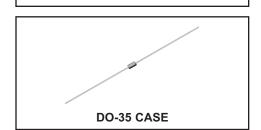
#### 1N5283 THRU 1N5314

## SILICON CURRENT LIMITING DIODES





www.centralsemi.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 Ip (regulator current) are available for critical applications.

## **FEATURES**:

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

MAXIMUM RATINGS: (T<sub>L</sub>=75°C)
Peak Operating Voltage
Power Dissipation
Operating and Storage Junction Temperature

 $\begin{array}{cccc} \textbf{SYMBOL} & \textbf{UNITS} \\ P_{OV} & 100 & V \\ P_{D} & 600 & \text{mW} \\ T_{J}, T_{stg} & -65 \text{ to } +200 & ^{\circ}\text{C} \end{array}$ 

#### **ELECTRICAL CHARACTERISTICS:** (T<sub>A</sub>=25°C)

Туре	Regulator Current (Note 1) Ip @ V <sub>T</sub> =25V			Minimum Dynamic Impedance	Minimum Knee Impedance	Maximum Limiting Voltage
				Z <sub>T</sub> @ V <sub>T</sub> =25V	Z <sub>K</sub> @ V <sub>K</sub> =6.0V	V <sub>L</sub> @ I <sub>L</sub> =0.8 x I <sub>P</sub> MIN
	MIN mA	NOM mA	MAX mA	MΩ	MΩ	V
1N5283	0.187	0.22	0.253	25	2.75	1.0
1N5284	0.204	0.24	0.276	19	2.35	1.0
1N5285	0.230	0.27	0.311	14	1.95	1.0
1N5286	0.255	0.30	0.345	9.0	1.60	1.0
1N5287	0.281	0.33	0.380	6.6	1.35	1.0
1N5288	0.332	0.39	0.449	4.1	1.00	1.05
1N5289	0.366	0.43	0.495	3.3	0.87	1.05
1N5290	0.400	0.47	0.541	2.7	0.75	1.05
1N5291	0.476	0.56	0.644	1.90	0.56	1.10
1N5292	0.527	0.62	0.713	1.55	0.47	1.13
1N5293	0.578	0.68	0.782	1.35	0.40	1.15
1N5294	0.638	0.75	0.863	1.15	0.335	1.20
1N5295	0.697	0.82	0.943	1.00	0.29	1.25
1N5296	0.774	0.91	1.05	0.88	0.24	1.29
1N5297	0.850	1.00	1.15	0.80	0.205	1.35
1N5298	0.935	1.10	1.27	0.70	0.18	1.40

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

R4 (7-February 2013)

# 1N5283 THRU 1N5314

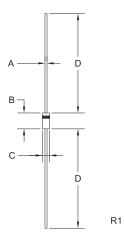




# $\textbf{ELECTRICAL CHARACTERISTICS - Continued:} \ (T_{\mbox{$A$}} = 25^{\circ}\mbox{C})$

Туре	Regulator Current (Note 1)			Minimum Dynamic Impedance	Minimum Knee Impedance	Maximum Limiting Voltage
	I <sub>P</sub> @ V <sub>T</sub> =25V			Z <sub>T</sub> @ V <sub>T</sub> =25V	Z <sub>K</sub> @ V <sub>K</sub> =6.0V	V <sub>L</sub> @ I <sub>L</sub> =0.8 x I <sub>P</sub> MIN
	MIN mA	NOM mA	MAX mA	MΩ	МΩ	V
1N5299	1.02	1.20	1.38	0.640	0.155	1.45
1N5300	1.11	1.30	1.50	0.580	0.135	1.50
1N5301	1.19	1.40	1.61	0.540	0.115	1.55
1N5302	1.28	1.50	1.73	0.510	0.105	1.60
1N5303	1.36	1.60	1.84	0.475	0.092	1.65
1N5304	1.53	1.80	2.07	0.420	0.074	1.75
1N5305	1.70	2.00	2.30	0.395	0.061	1.85
1N5306	1.87	2.20	2.53	0.370	0.052	1.95
1N5307	2.04	2.40	2.76	0.345	0.044	2.00
1N5308	2.30	2.70	3.11	0.320	0.035	2.15
1N5309	2.55	3.00	3.45	0.300	0.029	2.25
1N5310	2.81	3.30	3.80	0.280	0.024	2.35
1N5311	3.06	3.60	4.14	0.265	0.020	2.50
1N5312	3.32	3.90	4.49	0.255	0.017	2.60
1N5313	3.66	4.30	4.95	0.245	0.014	2.75
1N5314	4.00	4.70	5.41	0.235	0.012	2.90

# **DO-35 CASE - MECHANICAL OUTLINE**



DIMENSIONS								
	INC	HES	MILLIMETERS					
SYMBOL	MIN	MAX	MIN	MAX				
Α	0.018	0.022	0.46	0.56				
В	0.120	0.200	3.05	5.08				
С	0.060	0.090	1.52	2.29				
D	1.000	-	25.40	-				

DO-35 (REV: R1)

R4 (7-February 2013)

#### **OUTSTANDING SUPPORT AND SUPERIOR SERVICES**



#### PRODUCT SUPPORT

Central's operations team provides the highest level of support to insure product is delivered on-time.

- Supply management (Customer portals)
- · Inventory bonding
- · Consolidated shipping options

- · Custom bar coding for shipments
- · Custom product packing

#### **DESIGNER SUPPORT/SERVICES**

Central's applications engineering team is ready to discuss your design challenges. Just ask.

- Free guick ship samples (2<sup>nd</sup> day air)
- Online technical data and parametric search
- SPICE models
- · Custom electrical curves
- · Environmental regulation compliance
- · Customer specific screening
- · Up-screening capabilities

- Special wafer diffusions
- PbSn plating options
- Package details
- Application notes
- · Application and design sample kits
- Custom product and package development

#### REQUESTING PRODUCT PLATING

- 1. If requesting Tin/Lead plated devices, add the suffix "TIN/LEAD" to the part number when ordering (example: 2N2222A TIN/LEAD).
- 2. If requesting Lead (Pb) Free plated devices, add the suffix "PBFREE" to the part number when ordering (example: 2N2222A PBFREE).

#### **CONTACT US**

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