1N5283 THRU 1N5314

SILICON CURRENT LIMITING DIODES



DO-35 CASE

Central Semiconductor Corp.

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 I_P (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_L=75°C)	**SYMBOL**		**UNITS**
Peak Operating Voltage	P_{OV}	100	V
Power Dissipation	P_D	600	mW
Operating and Storage Junction Temperature	T_J, T_{stg}	-65 to +200	°C

ELECTRICAL CHARACTERISTICS: (T_A=25°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 x I_P 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 I_P NOM (mA)

R4 (7-February 2013)

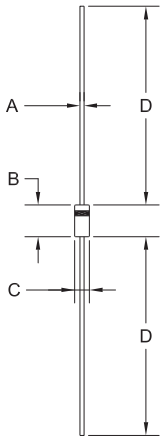
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ELECTRICAL CHARACTERISTICS - Continued: (T_A=25°C)

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 x I_P MIN
	MIN mA	NOM mA	MAX mA	MΩ	MΩ	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



R1

DIMENSIONS				
	INCHES		MILLIMETERS	
SYMBOL	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)

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 quick ship samples (2nd 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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