

# Central<sup>TM</sup> Semiconductor Corp.

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Manufacturers of World Class Discrete Semiconductors

1N5283 THRU 1N5314

CURRENT LIMITING DIODE

JEDEC DO-35 CASE

- LOW COST
- HIGH RELIABILITY
- SMALLER CASE SIZE THAN COMPETITION
- SPECIAL SELECTIONS AVAILABLE
- SUPERIOR LOT TO LOT CONSISTENCY
- SURFACE MOUNT DEVICES AVAILABLE

## 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. Lower cost units are available in the CCL0035 series.

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

Peak Operating Voltage

Power Dissipation

Operating and Storage Junction Temperature

## SYMBOL

POV

$P_D$

$T_J, T_{STG}$

100

600

-65 TO +200

## UNIT

V

mW

$^\circ\text{C}$

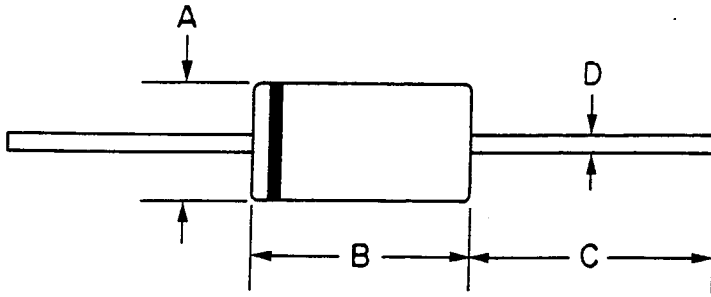
## ELECTRICAL CHARACTERISTICS ( $T_A = 25^\circ\text{C}$ )

TYPE NO.	REGULATOR CURRENT <sup>(1)</sup>			DYNAMIC IMPEDANCE	KNEE IMPEDANCE	LIMITING VOLTAGE
	$I_p @ V_T = 25V$			$Z_T @ V_T = 25V$	$Z_K @ V_K = 6.0V$	$V_L @ I_L = 0.8 I_p \text{ MIN}$
	mA			M $\Omega$	M $\Omega$	V
	MIN	NOM	MAX	MIN	MIN	MAX
1N5283	0.198	0.22	0.242	25.	2.75	1.00
1N5284	0.216	0.24	0.264	19.	2.35	1.00
1N5285	0.243	0.27	0.297	14.	1.95	1.00
1N5286	0.270	0.30	0.330	9.0	1.60	1.00
1N5287	0.297	0.33	0.363	6.6	1.35	1.00
1N5288	0.351	0.39	0.429	4.10	1.00	1.05
1N5289	0.387	0.43	0.473	3.30	0.870	1.05
1N5290	0.423	0.47	0.517	2.70	0.750	1.05
1N5291	0.504	0.56	0.616	1.90	0.560	1.10
1N5292	0.558	0.62	0.682	1.55	0.470	1.13
1N5293	0.612	0.68	0.748	1.35	0.400	1.15
1N5294	0.675	0.75	0.825	1.15	0.335	1.20
1N5295	0.738	0.82	0.902	1.00	0.290	1.25
1N5296	0.819	0.91	1.001	0.880	0.240	1.29
1N5297	0.900	1.00	1.10	0.800	0.205	1.35
1N5298	0.990	1.10	1.21	0.700	0.180	1.40
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

See Reverse for Outline Drawing

(1) PULSED METHOD. PULSE WIDTH (ms) =  $\frac{27.5}{I_p \text{ NOM (mA)}}$

R2



DIM	INCHES		MILLIMETERS	
	MIN	MAX	MIN	MAX
A	.060	.080	1.52	2.03
B	.140	.160	3.60	4.10
C	1.0	—	25.4	—
D	.018	.022	0.46	0.56

HERMETICALLY SEALED GLASS CASE WITH TINNED COPPER LEADS

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