

CentralTM Semiconductor Corp.

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Manufacturers of World Class Discrete Semiconductors

CDH300

CDH333

SILICON LOW LEAKAGE DIODE

JEDEC D0-35 CASE

DESCRIPTION

The CENTRAL SEMICONDUCTOR CDH300, CDH333 types are epitaxial planar silicon diodes designed for low leakage, high conductance applications. Higher breakdown voltage devices are available on special order.

MAXIMUM RATING ($T_A=25^\circ\text{C}$)

	SYMBOL		UNIT
Peak Repetitive Reverse Voltage	V_{RRM}	150	V
Peak Working Reverse Voltage	V_{RWM}	125	V
Average Forward Current	I_O	200	mA
Forward Steady-State Current	I_F	500	mA
Recurrent Peak Forward Current	i_f	600	mA
Peak Forward Surge Current (1.0s pulse)	I_{FSM}	1000	mA
Peak Forward Surge Current (1.0 μ s pulse)	I_{FSM}	4000	mA
Power Dissipation	P_D	500	mW
Operating and Storage Junction Temperature	T_J, T_{STG}	-65 TO +200	$^\circ\text{C}$

ELECTRICAL CHARACTERISTICS ($T_A=25^\circ\text{C}$ unless otherwise noted)

SYMBOL	TEST CONDITIONS	CDH300		CDH333		UNIT
		MIN	MAX	MIN	MAX	
I_R	$V_R=125\text{V}$		1.0		3.0	nA
I_R	$V_R=125\text{V}, T_A=100^\circ\text{C}$		-		500	nA
I_R	$V_R=125\text{V}, T_A=150^\circ\text{C}$		3.0		-	μA
B_{VR}	$I_R=100\mu\text{A}$	150		150		V
V_F	$I_F=1.0\text{mA}$		0.70		-	V
V_F	$I_F=5.0\text{mA}$		0.78		-	V
V_F	$I_F=10\text{mA}$		0.80		-	V
V_F	$I_F=50\text{mA}$		0.88	0.80	0.89	V
V_F	$I_F=100\text{mA}$		0.92	0.83	0.94	V
V_F	$I_F=150\text{mA}$		-	0.86	0.97	V
V_F	$I_F=200\text{mA}$		1.0	0.87	1.05	V
V_F	$I_F=250\text{mA}$		-	0.88	1.08	V
V_F	$I_F=300\text{mA}$		-	0.90	1.15	V
C	$V_R=0\text{V}$		6.0		6.0	pF
t_{rr}	$I_F=I_R=10\text{mA}, \text{Recov. to } 1.0\text{mA}$	1.0 TYP	3.0	1.0 TYP	3.0	μs