

CentralTM Semiconductor Corp.

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Manufacturers of World Class Discrete Semiconductors

CDSH-2
CDSH-4

SILICON SCHOTTKY BARRIER DIODE

JEDEC DO-35 CASE

DESCRIPTION

The CENTRAL SEMICONDUCTOR CDSH Series types are Silicon Schottky Barrier Diodes designed for general purpose fast switching applications. This series is an ideal candidate to replace germanium switching diodes and conventional silicon switching diodes where ultra fast switching speeds and very low forward voltage drops are required. Higher voltage devices are available on special order.

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

	SYMBOL	CDSH-2	CDSH-4	UNITS
Peak Inverse Voltage	PIV	20	40	V
Average Forward Current	I_O	200		mA
Peak Forward Surge Current (1 Cycle, 8ms)	I_{FSM}	15		A
Power Dissipation	P_D	400		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	MIN	TYP	MAX	UNITS
I_R	$V_R = 10\text{V}$ (CDSH-2)			5.0	μA
I_R	$V_R = 30\text{V}$ (CDSH-4)			5.0	μA
BV_R	$I_R = 50\mu\text{A}$ (CDSH-2)	20			V
BV_R	$I_R = 50\mu\text{A}$ (CDSH-4)	40			V
V_F	$I_F = 1.0\text{mA}$			0.3	V
V_F	$I_F = 20\text{mA}$			0.4	V
V_F	$I_F = 200\text{mA}$			0.6	V
t_{rr}	$I_F = I_R = 200\text{mA}$, Rec. to 20mA		5.0		ns
C_{ob}	$V_R = 0\text{V}$, $f = 1.0\text{MHz}$		50		pF