Discrete POWER & Signal **Technologies**

FDH/FDLL 300/A / 333



DO-35

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LL-34 THE PLACEMENT OF THE EXPANSION GAP HAS NO RELATIONSHIP TO THE LOCATION OF THE CATHODE TERMINAL

COLOR BAND MARKING			
DEVICE	1ST BAND	2ND BAND	
FDLL300 FDLL300A	BROWN BROWN	GREEN YELLOW	
FDLL333	BROWN	BLUE	

High Conductance Low Leakage Diode

Sourced from Process 1M. See MMBD1501/A-1505/A for characteristics.

Absolute Maximum Ratings* TA = 25°C unless otherwise noted

Symbol	Parameter	Value	Units	
W _{IV}	Working Inverse Voltage	125	V	
lo	Average Rectified Current	200	mA	
I _F	DC Forward Current	500	mA	
İf	Recurrent Peak Forward Current	600	mA	
İf(surge)	Peak Forward Surge Current Pulse width = 1.0 second Pulse width = 1.0 microsecond	1.0 4.0	A A	
T _{stg}	Storage Temperature Range	-65 to +200	°C	
TJ	Operating Junction Temperature	175	°C	

*These ratings are limiting values above which the serviceability of any semiconductor device may be impaired.

NOTES:

1) These ratings are based on a maximum junction temperature of 200 degrees C.
2) These are steady state limits. The factory should be consulted on applications involving pulsed or low duty cycle operations.

Thermal Characteristics

TA = 25°C unless otherwise noted

Symbol	Characteristic	Max	Units
		FDH/FDLL 300/A / 333	
P _D	Total Device Dissipation	500	mW
	Derate above 25°C	3.33	mW/∘C
$R_{\theta JA}$	Thermal Resistance, Junction to Ambient	300	°C/W

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High Conductance Low Leakage Diode (continued)

Symbol	Para	meter	Test Conditions	Min	Max	Units
Bv	Breakdown Voltage	Э	I _R = 100 μA	150		V
I _R	Reverse Current	FDH/FDLL 300/A	V _R = 125 V		1.0	nA
			V _R = 125 V, T _A = 150°C		3.0	μA
		FDH/FDLL 333	$V_{R} = 125 V$		3.0	nA
			V _R = 125 V, T _A = 100°C		500	nA
V _F	Forward Voltage	FDH/FDLL 300/A	I _F = 1.0 mA		680	mV
	-	FDH/FDLL 300	$I_{\rm F} = 5.0 {\rm mA}$		750	mV
		FDH/FDLL 300A	$I_{\rm F} = 5.0 {\rm mA}$		760	mV
		FDH/FDLL 300/A	$I_F = 10 \text{ mA}$		800	mV
		FDH/FDLL 300	I _F = 50 mA		880	mV
		FDH/FDLL 300A	I _F = 50 mA		890	mV
		FDH/FDLL 300/A	I _F = 100 mA		920	mV
		FDH/FDLL 300/A	I _F = 200 mA		1.0	V
		FDH/FDLL 333	I _F = 50 mA	800	890	mV
			$I_{\rm F} = 100 \rm mA$	830	940	mV
			$I_{\rm F} = 150 {\rm mA}$	860	970	mV
			$I_{\rm F} = 200 {\rm mA}$	0.87	1.05	V
			$I_{\rm F} = 250 {\rm mA}$	0.88	1.08	V
			$I_{\rm F} = 300 {\rm mA}$	0.9	1.15	V
Co	Diode Capacitance	9	$V_{R} = 0, f = 1.0 \text{ MHz}$		6.0	pF

FDH300/A / FDLL300/A / FDH333 / FDLL333

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