ANALOG DEVICES

AHEAD OF WHAT'S POSSIBLE™

LT4356-1/LT4356-2

Data Sheet Limit Change Comparison

VCC Supply Current Limit Change

- V_{CC} supply Current (LT4356H-1) max limit to be changed from 40 µA to 50 µA.

BEFORE

LT4356-1/LT4356-2

ELECTRICAL CHARACTERISTICS The ● denotes the specifications which apply over the full operating temperature range, otherwise specifications are at T_A = 25°C. V_{CC} = 12V unless otherwise noted.

SYMBOL	PARAMETER	CONDITIONS		MIN	TYP	MAX	UNITS
V_{CC}	Operating Voltage Range		●	4		80	V
I_{CC}	V_{CC} Supply Current	$V_{\overline{SHDN}}$ = Float	●		1	1.5	mA
		$V_{\overline{SHDN}}$ = 0V, IN^+ = 1.3V, LT4356-1			7	25	µA
		LT4356I-1, LT4356C-1	●		7	30	µA
		LT4356H-1	●		7	40	µA

AFTER

LT4356-1/LT4356-2

ELECTRICAL CHARACTERISTICS The ● denotes the specifications which apply over the full operating temperature range, otherwise specifications are at T_A = 25°C. V_{CC} = 12V unless otherwise noted.

SYMBOL	PARAMETER	CONDITIONS		MIN	TYP	MAX	UNITS
V_{CC}	Operating Voltage Range		●	4		80	V
I_{CC}	V_{CC} Supply Current	$V_{\overline{SHDN}}$ = Float	●		1	1.5	mA
		$V_{\overline{SHDN}}$ = 0V, IN^+ = 1.3V, LT4356-1			7	25	µA
		LT4356I-1, LT4356C-1	●		7	30	µA
		LT4356H-1	●		7	50	µA

$\overline{\text{SHDN}}$ Pin Resting Voltage and Pin Current Limit Change

- $\overline{\text{SHDN}}$ Pin Resting Voltage max limit to be changed from 2.1 V to 2.3 V.
- $\overline{\text{SHDN}}$ Pin Current max limit to be changed from -8 µA to -12 µA

BEFORE

LT4356-1/LT4356-2

ELECTRICAL CHARACTERISTICS The ● denotes the specifications which apply over the full operating temperature range, otherwise specifications are at T_A = 25°C. V_{CC} = 12V unless otherwise noted.

SYMBOL	PARAMETER	CONDITIONS		MIN	TYP	MAX	UNITS
$V_{\overline{SHDN}(FLT)}$	$\overline{\text{SHDN}}$ Pin Resting Voltage	V_{CC} = 12V to 48V, Note 4	●	0.6		2.1	V
$I_{\overline{SHDN}}$	$\overline{\text{SHDN}}$ Pin Current	$V_{\overline{SHDN}}$ = 0V	●	–1	–4	–8	µA

AFTER

LT4356-1/LT4356-2

ELECTRICAL CHARACTERISTICS The ● denotes the specifications which apply over the full operating temperature range, otherwise specifications are at T_A = 25°C. V_{CC} = 12V unless otherwise noted.

SYMBOL	PARAMETER	CONDITIONS		MIN	TYP	MAX	UNITS
$V_{\overline{SHDN}(FLT)}$	$\overline{\text{SHDN}}$ Pin Resting Voltage	V_{CC} = 12V to 48V, Note 4	●	0.6		2.3	V
$I_{\overline{SHDN}}$	$\overline{\text{SHDN}}$ Pin Current	$V_{\overline{SHDN}}$ = 0V	●	–1	–4	–12	µA

Applications Information (Shutdown)

- Corrected shutdown threshold number of 0.6V to 0.4V to be consistent with $\overline{SHDN}$ Pin Threshold spec over temperature.

BEFORE

Shutdown

The LT4356 can be shut down to a low current mode when the voltage at the $\overline{SHDN}$ pin goes below the shutdown threshold of 0.6V. The quiescent current drops to 7µA for the LT4356-1 and 60µA for the LT4356-2 which leaves the auxiliary amplifier on.

The $\overline{SHDN}$ pin can be pulled up to V_{CC} or below GND by up to 60V without damaging the pin. Leaving the pin open allows an internal current source to pull it up and turn on the part while clamping the pin to 2.5V. The leakage current at the pin should be limited to no more than 1µA if no pull up device is used to help turn it on.

AFTER

Shutdown

The LT4356 can be shut down to a low current mode when the voltage at the $\overline{SHDN}$ pin goes below the shutdown threshold of 0.4V. The quiescent current drops to 7µA for the LT4356-1 and 60µA for the LT4356-2 which leaves the auxiliary amplifier on.

The $\overline{SHDN}$ pin can be pulled up to V_{CC} or below GND by up to 60V without damaging the pin. Leaving the pin open allows an internal current source to pull it up and turn on the part while clamping the pin to 2.5V. The leakage current at the pin should be limited to no more than 1µA if no pull up device is used to help turn it on.