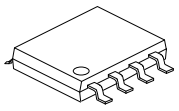
UASS103 **Preliminary** ***LINEAR INTEGRATED CIRCUIT***

REMOVE PHANTOM POWER



SOP-8

■ DESCRIPTION

The **UASS103** is designed to improve no-load consumption IC controller.

The **UASS103** is designed to reduce the no load consumption or so called Phantom power for AC Adapter, Desk Top PC power supply, TV Power Supply and others.

■ FEATURES

* No load consumption can be reduced ~180mw for EPA/Climate Saver Application to reduce the phantom power.
* Reliable and rugged
* No V_{CC}

■ ORDERING INFORMATION

Ordering Number		Package	Packing
Lead Free	Halogen Free		
UASS103L-S08-R	UASS103G-S08-R	SOP-8	Tape Reel

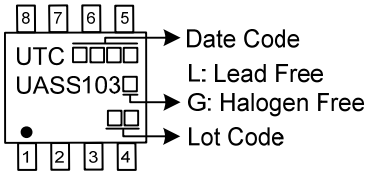
UASS103G-S08-R

(1)Packing Type — (1) R: Tape Reel

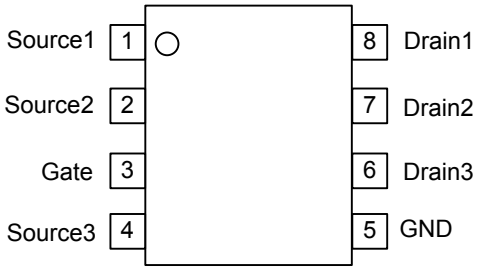
(2)Package Type — (2) S08: SOP-8

(3)Green Package — (3) G: Halogen Free and Lead Free, L: Lead Free

■ MARKING



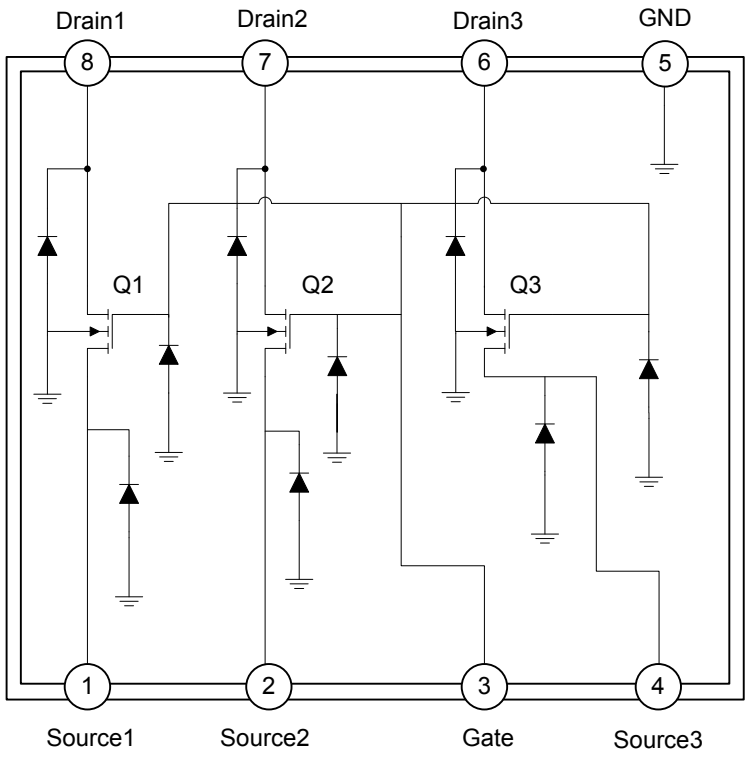
■ PIN DESCRIPTION



■ PIN DESCRIPTION

PIN NO.	PIN NAME	DESCRIPTION
1	Source1	Source of MOSFET-1
2	Source2	Source of MOSFET-2
3	Gate	Common gate of MOSFET-1 & -2 & -3
4	Source3	Source of MOSFET-3
5	GND	Ground
6	Drain3	Drain of MOSFET-3
7	Drain2	Drain of MOSFET-2
8	Drain1	Drain of MOSFET-1

■ BLOCK DIAGRAM



■ ABSOLUTE MAXIMUM RATING

PARAMETER	SYMBOL	RATINGS	UNIT
Drain-Source Voltage	V_{DSS}	800	V
Gate-Source Voltage	V_{GSS}	+20/-0.3	V
Source Pin Voltage	V_{sb}	< 8	V
Continuous Drain Current	I_D	25	mA
Pulsed Continuous Drain Current	I_{DM}	200	mA
Power Dissipation	$P_{D(MAX)}$	1.3	W
Junction Temperature	T_J	+150	°C
Storage Temperature (SOP8/DIP8)	T_{STG}	-55 ~ +150	°C

Note: Absolute maximum ratings are those values beyond which the device could be permanently damaged. Absolute maximum ratings are stress ratings only and functional device operation is not implied.

■ ELECTRICAL CHARACTERISTICS

PARAMETER	SYMBOL	TEST CONDITIONS	MIN	TYP	MAX	UNIT
OFF CHARACTERISTICS						
Drain-Source Breakdown Voltage	BV_{DSS}	V_{GS}=0V, I_D=40uA	800			V
Drain-Source Leakage Current	I_{DSS}	V_{DS}=500V, V_{GS}=0V			0.1	uA
Gate-Source Leakage Current	I_{GSS}	V_{DS}=0V, V_{GS}=±20V			±0.1	uA
ON CHARACTERISTICS						
Gate Threshold Voltage	$V_{GS(TH)}$	V_{DS}=V_{GS}, I_D=250uA	0.9		1.3	V
Drain-Source On-State Resistance (Note 1)	$R_{DS(ON)}$	V_{GS}=5V, I_D=1mA		500	1000	Ω
		V_{GS}=2.5V, I_D=1mA		530	1000	Ω
SWITCHING CHARACTERISTICS						
Gate-Source Charge	Q_{GS}	V_{DS}=50V,V_{GS}=10V, I_D=25mA		6.4		nC
Turn-On Delay Time (Note 1)	$t_{D(ON)}$	V_{DS}=50V, V_{GS}=5V, I_D=12.5mA, R_G=3Ω,		14		ns
Turn-On Rise Time	t_R			60		ns
Turn-Off Delay Time	$t_{D(OFF)}$			38		ns
Turn-Off Fall Time	t_F			280		ns
SOURCE-DRAIN DIODE RATINGS AND CHARACTERISTICS						
Diode Continuous Forward Current (Note 2)	I_S			25		mA
Drain-Source Diode Forward Voltage (Note 1)	V_{SD}	I_S=25mA,V_{GS}=0V		0.81	1	V
SOURCE CHARACTERISTICS						
Normal Operating Voltage	V_{sb}		0		7	V
Breakdown Voltage	V_{sb}			10		V

Note 1 : Pulse width ≦ 300us, duty cycle ≦ 2%.
Note 2 : Surface Mounted on 1in 2 pad area, t ≦ 10sec.

■ TYPICAL APPLICATION CIRCUIT