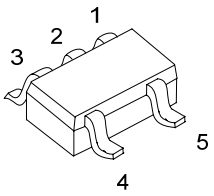
UM603S

LINEAR INTEGRATED CIRCUIT

OPERATIONAL AMPLIFIERS WITH 2.5V SHUNT REGULATOR



SOT-25

*Pb-free plating product number:UM603SL

■ DESCRIPTION

UTC **UM603S** that is designed to include 2 op amp and one shunt regulator for battery charger and AC adapter application.

■ FEATURES

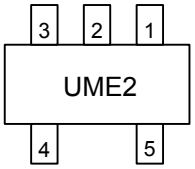
* Small SOT-25 package
* Internal accurate 2.5V V_{REF}
* Reduced external components

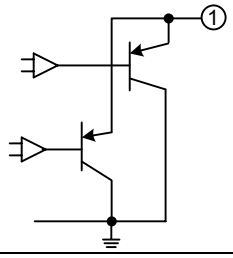
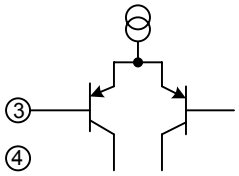
■ ORDERING INFORMATION

Order Number		Package	Packing
Normal	Lead Free Plating		
UM603S-AF5-R	UM603SL-AF5-R	SOT-25	Tape Reel

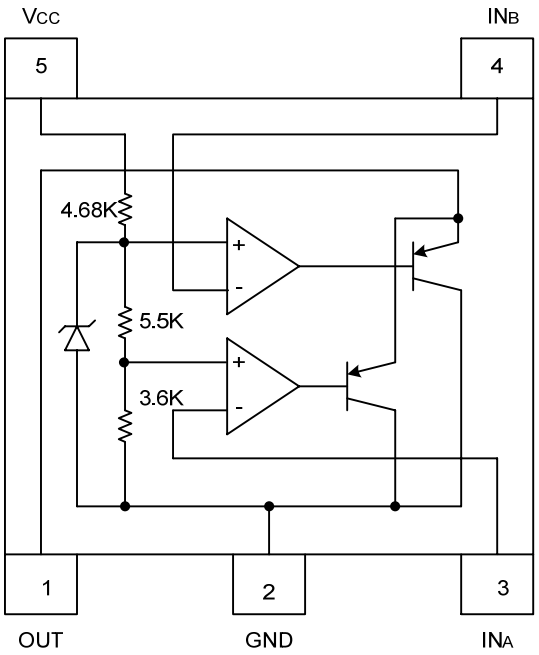
UM603SL-AF5-R (1)Packing Type (2)Package Type (3)Lead Plating	(1) R: Tape Reel (2) AF5: SOT-25 (3) L: Lead Free Plating, Blank: Pb/Sn

■ MARKING AND PIN DESCRIPTION



PIN NO.	PIN NAME	FUNCTION	INTERNAL CIRCUIT DIAGRAM
1	OUT	Output Pin	
2	GND	Ground	
3	IN_A	Input Pin	
4	IN_B		
5	V_{CC}	Supply Voltage	

■ BLOCK DIAGRAM



■ ABSOLUTE MAXIMUM RATINGS (Ta = 25℃)

PARAMETER	SYMBOL	RATINGS	UNIT
Supply Voltage	V_{CC}	-0.3 ~ +20	V
Recommended Operating Voltage	V_{OPR}	+4 ~ +20	V
Allowable loss	P_D	250	mW
Operating Temperature	T_{OPR}	-25 ~ +85	℃
Storage Temperature	T_{STG}	-40 ~ +125	℃

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 (V_{CC}=5V, Ta=25℃, unless otherwise specified.)

PARAMETER	SYMBOL	TEST CONDITIONS	MIN	TYP	MAX	UNIT
Current Consumption	I_{CC}	IN_A=0V, IN_B=0V, R_L=∞		1.2	1.7	mA
A Amplifier						
Output Inverting Voltage	V_A	IN_A =0V, R_L=4.3k	2.45	2.50	2.55	V
Output Sink Current	$I_{O(SINK\ A)}$	IN_B =2.7V, IN_A =0V, V_{OUT}=1.5V	5			mA
Input Bias Current	$I_{I(BIAS\ A)}$	IN_A =0V, R_L=4.3k		50	140	nA
PSRR	PSRR(A)	IN_A =0V, R_L=4.3k	62			dB
B Amplifier						
Output Inverting Voltage	V_B	IN_B =0V, R_L=4.3k	152		160	mV
Output Sink Current	$I_{O(SINK\ B)}$	IN_B =0V, IN_A=0.17V, V_{OUT}=1.5V	5			mA
Input Bias Current	$I_{I(BIAS\ B)}$	IN_B =0V, R_L=4.3k		50	140	nA
PSRR	PSRR(B)	IN_B =0V, R_L=4.3k	65			dB

■ APPLICATION CIRCUIT