ACE5195LA

500mA High PSRR, Linear Regulator, w. Output Discharge

Description

ACE5195LA series is a group of positive voltage output, low power consumption, low dropout voltage regulator.

ACE5195LA can provide output value in the range of 0.9V~4.5V every 0.1V step. It also can be customized on command. ACE5195LA can also work under a wide input voltage ranging from 2.0V to 6V. ACE5195LA includes high accuracy voltage reference, error amplifier, current limit circuit and output driver module.

ACE5195LA has excellent load and line transient response and good temperature characteristics, which can assure the stability of chip and power system. And it uses trimming technique to guarantee output voltage accuracy within ±2%.

ACE5195LA is available in SOT-23-3, SOT-23-5, SC-70-5 and DFN1x1-4 packages which is lead free.

Features

- Output voltage range: 0.9V~4.5V (customized on command every 0.1V step)
- Low power consumption: 80uA (Typ.)
- Shutdown mode: 0.1uA
- Low dropout voltage:65mV@100mA @V_{OUT}=3.3V(Typ.)
- High ripple rejection:70dB@1KHz (Typ.)
- Low temperature coefficient: ±100ppm/°C
- Excellent line regulation: 0.05%/V
- Build-in chip enable and discharge circuit
- Highly accurate: ±2%
- Output current limit

Application

- Power source for cellular phones and various kind of PCSs
- Battery Powered equipment
- Power Management of MP3, PDA, DSC, Mouse, PS2 Games
- Voltage Reference
- Regulation after Switching Power

Absolute Maximum Ratings

Parameter		Value
Max Input Voltage		8V
Operating Junction Temperature (Tj)		125°C
Output Current		500mA
Ambient Temperature (Ta)		-40°C ~85°C
Power Dissipation	SOT-23-3	400mW
	SOT-23-5	400mW
	SC70-5	250mW
	DFN1x1-4	600mW
Storage Temperature (Ts)		-40°C ~150°C
Lead Temperature & Time		260°C,10S
ESD(HBM)		>2000V

Note:

Heat Sink Area of PCB for DFN1x1-4 is recommended at least 2.5mmx4mm. Exceed these limits to damage to the device.

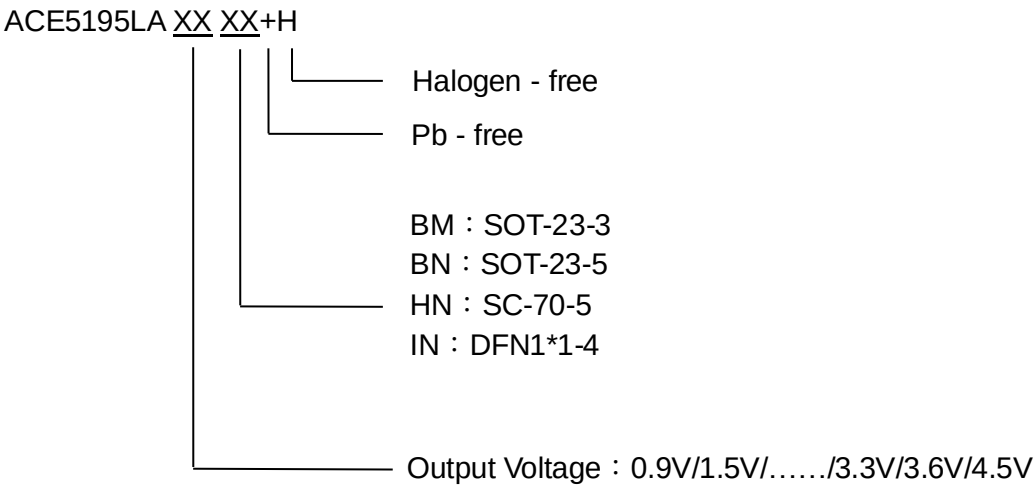
Exposure to absolute maximum rating conditions may affect device reliability.

Recommended Work Conditions

Item	Min	Max.	Unit
Input Voltage Range	2	6	V
Ambient Temperature*	-40	85	°C

*The operation ambient temperature range is verified on several test samples. Not a test condition for volume production whose test is only performed under 25°C.

Ordering information



Notes

ACE does not assume any responsibility for use as critical components in life support devices or systems without the express written approval of the president and general counsel of ACE Technology Co., LTD. As sued herein:

1. Life support devices or systems are devices or systems which, (a) are intended for surgical implant into the body, or (b) support or sustain life, and shoes failure to perform when properly used in accordance with instructions for use provided in the labeling, can be reasonably expected to result in a significant injury to the user.
2. A critical component is any component of a life support device or system whose failure to perform can be reasonably expected to cause the failure of the life support device or system, or to affect its safety or effectiveness.