AP2138 (NRND)

NRND = Not Recommended for New Design

Alternative Part: AP7354,

250MA Ultra Low Quiescent Current CMOS LDO

Datasheet

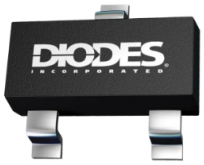

Image shown is for reference only. Actual package may vary. Refer to the product data sheet for package details. SOT23

Contact Sales

Notify me

Log in or register to manage email notifications about changes to datasheets or PCNs for this part.

Overview | Specs. & Tech Docs | Purchase & Availability

Description

The AP2138/2139 series are CMOS-based positive voltage regulator ICs. Each of these ICs consists of a voltage reference, an error amplifier, a resistor network for setting output voltage and a current limit circuit for current protection. The difference between AP2138 and AP2139 is the AP2139 has an enable circuit with a quick discharge function. These ICs feature high output voltage accuracy, extremely low quiescent current and low dropout voltage which make them ideal for use in various power sources for portable applications. The AP2138/2139 series have 1.2V, 1.4V, 1.5V, 1.8V, 2.5V, 2.8V, 3.0V, 3.3V, 3.6V and 4.0V fixed output voltage versions.

Feature(s)

· Ultra-low Quiescent Current: 1.0μA Typical · Output Voltages: 1.2V, 1.4V, 1.5V, 1.8V, 2.5V, 2.8V, 3.0V, 3.3V, 3.6V and 4.0V · High Output Voltage Accuracy: ±2% · Output Current: 250mA · Low Dropout Voltage: - 25mV Typical at IOUT=10mA and VOUT=3V - 200mV Typical at IOUT=100mA and VOUT=3V · Line Regulation: 6mV Typical · Load Regulation: 25mV Typical · Low Output Voltage Temperature Coefficient: ±100ppm/C · Low Standby Current: 0.1μA Typical (AP2139) · Active Quick Output Discharge (AP2139) · Logic-control°C Enable (AP2139)

Application(s)

· Battery Powered Equipment · Reference Voltage Sources · Cameras, Video Cameras · Portable AV Systems · Mobile Phones · Communication Tools · Portable Games

Specifications & Technical Documents

Product Parameters

Accuracy 25C	2
AEC Qualified	No
Channels	1
Compliance (Only Automotive Supports PPAP)	Standard
Enable Active	No
Features	Low IQ
Fixed Vout (V)	1.2, 1.4, 1.5, 1.8, 2.1, 2.5, 2.8, 3.0, 3.3, 3.6, 4.0
I_{OUT}	0.25
Iout (A)	0.25
$I_{Q\ (mA)}$	1
Iq (typ) (μA)	1
Output Discharge	No
Output options	Fixed
Power Good	No

Related Content

Packages

SOT23
SOT25
SOT89

PCB Symbol, Footprint & 3D Model

Technical Documents

Recommended Soldering Techniques

TN1.pdf

PSRR	55
PSRR (dB) 1kHz	55
Reverse Protection	No
Type	LDO
VCTL Function	No
VDROPOUT (Max) (V) at Max Current and Max Ouput Voltage	0.6
Vin (Max) (V)	6
Vin (Min) (V)	2.5
V_{OUT}	4, 3.6, 3.3, 3, 2.8, 2.5, 2.1, 1.8, 1.5, 1.4, 1.2
Vout (max)	3.3
Vout (min)	1.2

Purchase & Availability

Orderable Part Number	Status	Package	Environmental Compliance	Packing		Buy from Distributor / Contact Sales	Request Samples	CAD Model(s)
				Qty.	Carrier			
Not Recommended for New Design (NRND)								
AP2138N-1.2TRG1	Not Recommended for New Design (NRND)	SOT23	TPGP	3000		Buy Now		
AP2138N-1.4TRG1	Not Recommended for New Design (NRND)	SOT23	TPGP	3000		Contact Sales!		
AP2138N-1.5TRG1	Not Recommended for New Design (NRND)	SOT23	TPGP	3000		Buy Now		
AP2138N-1.8TRG1	Not Recommended for New Design (NRND)	SOT23	TPGP	3000		Buy Now		
AP2138N-2.1TRG1	Not Recommended for New Design (NRND)	SOT23	TPGP	3000		Buy Now		
AP2138N-2.2TRG1	Not Recommended for New Design (NRND)	SOT23	TPGP	3000		Buy Now		
AP2138N-2.5TRG1	Not Recommended for New Design (NRND)	SOT23	TPGP	3000		Buy Now		
AP2138N-2.8TRG1	Not Recommended for New Design (NRND)	SOT23	TPGP	3000		Buy Now		
AP2138N-3.0TRG1	Not Recommended for New Design (NRND)	SOT23	TPGP	3000		Buy Now		
AP2138N-3.3TRG1	Not Recommended for New Design (NRND)	SOT23	TPGP	3000		Buy Now		
AP2138N-3.6TRG1	Not Recommended for New Design (NRND)	SOT23	TPGP	3000		Buy Now		
AP2138N-4.0TRG1	Not Recommended for New Design (NRND)	SOT23	TPGP	3000		Contact Sales!		
▼ **Obsolete** (hide)								
AP2138R-1.2TRG1	Obsolete	SOT89	GREEN	1000				
AP2138R-1.4TRG1	Obsolete	SOT89	GREEN	1000				
AP2138R-1.5TRG1	Obsolete	SOT89	GREEN	1000				
AP2138R-1.8TRG1	Obsolete	SOT89	GREEN	1000				
AP2138R-2.5TRG1	Obsolete	SOT89	GREEN	1000				
AP2138R-2.8TRG1	Obsolete	SOT89	GREEN	1000				
AP2138R-3.0TRG1	Obsolete	SOT89	GREEN	1000				
AP2138R-3.3TRG1	Obsolete	SOT89	GREEN	1000				
AP2138R-3.6TRG1	Obsolete	SOT89	GREEN	1000				
AP2138R-4.0TRG1	Obsolete	SOT89	GREEN	1000				
AP2138RA-3.3TRG1	Obsolete	SOT89	GREEN	1000				

Environmental Compliance Legend:
LFF: Pb-Free Finish and RoHS 5/6
TLFP: Totally Pb-Free Product and RoHS 6/6
LFGP: Pb-free Finish and Green Product, RoHS 5/6 and Halogen Free
TPGP: Totally Pb-Free and Green Product, RoHS 6/6 and Halogen Free
GREEN: Halogen-free and RoHS compliant
RoHS: RoHS compliant but NOT halogen-free

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