



New Product Announcement

AP7375Q

Ultra-Low Quiescent, 45V Input Voltage, 300mA Automotive-Compliant LDO

The AP7375Q series has a wide 3V to 45V input voltage range with an extremely low 2.1 μ A quiescent current, making it efficient in automotive battery connected applications where standby current consumption is crucial.

The device has a maximum 300mA output current and is available in 1.8V, 3.0V, 3.3V, and 5V fixed output voltage versions with $\pm 2\%$ output tolerance. It also features integrated short-circuit and thermal-shutdown protection.

This device is available in SOT89 and SO-8EP packages.



The DIODES Advantage

The AP7375Q minimizes power consumption with its ultra-low quiescent current for always-on systems in automotive battery-connected applications.

- **Wide 3V to 45V Input Voltage Range**
Allows the device to withstand transients in automotive systems
- **Ultra-Low 2.1 μ A Quiescent Current**
Extends battery run time to enable continued operation when the vehicle is turned off
- **High PSRR up to 85dB at 1kHz**
Suitable for noise sensitive applications
- **Automotive-Compliant with AEC-Q100 Grade 1**
Operates across -40°C to +125°C ambient temperature and supports PPAP documentation
- **Low Thermal Impedance SOT89 and SO-8EP Packages**
Supports high ambient temperature operation

Applications

- Automotive head units
- POL for MCUs and CAN/LIN transceivers
- Body control modules
- Keyless entry systems
- Car audio, car navigation
- Headlights

Automotive-compliant -AEC qualified, manufactured in IATF 16949 certified sites supporting PPAP documents.

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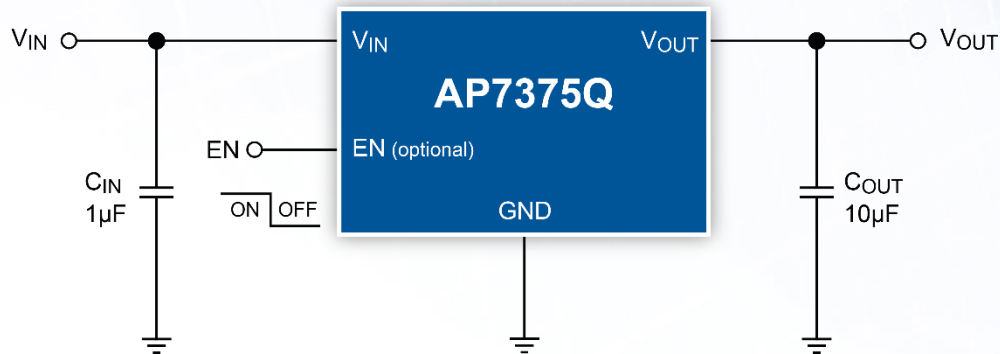
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AP7375Q

Typical Application



Automotive-Compliant CMOS LDO Product Portfolio

Part Number	V_{IN}	V_{OUT}	I_{OUT}	V_{DROP} @ Full Load	I_q	Output Accuracy	Enable	Output Discharge	PSRR @1kHz	Package
	(V)	(V)	(mA)	(mV)	(μ A)	(%)				
AP7375Q	3.0 to 45	1.8, 3.0, 3.3, 5.0	300	1,200	2.1	2	Yes	No	85	SOT89, SO-8EP
AP7315Q	1.7 to 5.25	1.1, 1.2, 1.5, 1.72, 1.8, 2.5, 2.7, 2.8, 2.9, 3.0, 3.3	150	290	35	1	Yes	No	75	SOT25
AP7315DQ								Yes		
AP7343Q	1.7 to 5.25	0.9, 1.0, 1.1, 1.2, 1.5, 1.8, 1.85, 2.5, 2.7, 2.8, 2.9, 3.0, 3.3	300	310	35	1	Yes	No	75	SOT25
AP7343DQ								Yes		
AP7347DQ	1.7 to 5.5	1.0, 1.05, 1.1, 1.15, 1.2, 1.5, 1.7, 1.8, 2.2, 2.5, 2.8, 2.9, 3.3, 5.0	500	320	60	1	Yes	Yes	75	SOT25 (Type A1), W-DFN2020-6 (SWP) (Type A1)

Ordering Information

Orderable Part Number	V_{OUT}	Compliance (Only Automotive Supports PPAP)	Package	Moisture Sensitivity	Packing	
	(V)				Quantity	Carrier
AP7375Q-xxY-13	18 : 1.8V 30 : 3.0V 33 : 3.3V	Automotive	SOT89	MSL-1	2,500	13" Tape & Reel
AP7375Q-xxSP-13	50 : 5.0V		SO-8EP	MSL-1	2,500	13" Tape & Reel