



New Product Announcement

AP7375Q

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

The DIODES™ AP7375Q series has a wide 3V to 45V input voltage range with an extremely low 2.1µA 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 2.1µA 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

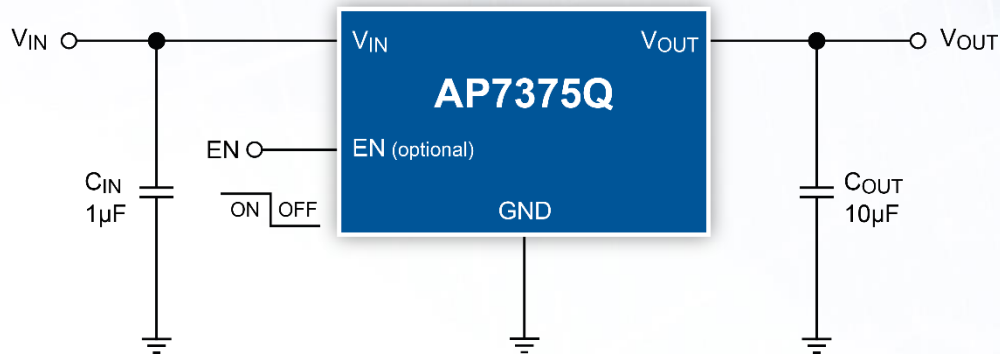
Automotive-compliant -AEC qualified, manufactured in IATF 16949 certified sites supporting PPAP documents.

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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