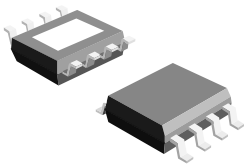
3A Ultra Low Dropout Linear Regulator TPS7A7002

FEATURES

- Ultra-Low Dropout Voltage
- Compatible with low ESR MLCC as Input / Output Capacitor
- Good Line and Load Regulation
- Guaranteed Output Current of 3A
- Available in SOP8-PP Package
- Output Auto Discharge Function
- Over-Temperature/Over-Current Protection

SOP8-PP



APPLICATION

- LCD TVs and SETTOP Boxes
- Battery Powered Equipment
- Motherboards and Graphic Cards
- Microprocessor Power Supplies
- Peripheral Cards
- High Efficiency Linear Regulators
- Battery Chargers

ORDERING INFORMATION

Device	Package
TPS7A7002DP	SOP8-PP

* Refer to the ordering information for the details.

DESCRIPTION

The TPS7A7002 series of high performance ultra-low dropout linear regulators operates from 2.5V to 5.5V input supply and provides ultra-low dropout voltage, high output current with low ground current. Wide range of preset output voltage options are available. These ultra-low dropout linear regulators respond fast to step changes in load which makes them suitable for low voltage micro-processor applications. The TPS7A7002 is developed on a CMOS process technology which allows low quiescent current operation independent of output load current. This CMOS process also allows the TPS7A7002 to operate under extremely low dropout conditions.

ABSOLUTE MAXIMUM RATINGS (Note 1)

CHARACTERISTIC	SYMBOL	MIN.	MAX.	UNIT
Input Supply Voltage (Survival)	V_{IN}	-	6.5	V
Maximum Output Current	I_{MAX}	-	3	A
Lead Temperature (Soldering, 5 sec)	T_{SOL}		260	°C
Storage Temperature Range	T_{STG}	-65	150	°C
Operating Junction Temperature Range	T_{JOPR}	-40	125	°C
Package Thermal Resistance*	$\Theta_{JA\text{-}SOP8\text{-}PP}$	68		°C/W

* Calculated from package in still air, mounted to 2.6mm X 3.5mm(minimum foot print) 2 layer PCB without thermal vias per JESD51 standards.

Please contact us for more information about this product.