

Introduction of Toshiba compact LDO regulators

Lineup of high-performance LDO-regulators from 150mA to 1500mA!

Toshiba's TCR-series are small packaged CMOS LDO regulator ICs. These devices are high-performance LDOs in small packages and are a very popular series of products.

• Multifunctional, high-quality LDO regulators

In recent years, various applications require high-quality, power-saving, and safe operation. Therefore, a higher-performance power supply is essential. To meet these requirements, Toshiba's LDO regulator offers ultra-low drop-out, ultra-low current dissipation, high ripple (PSRR) rejection rate, ultra-high speed load transient response, and low rush current. Toshiba's LDO regulator offers an inexpensive linear regulator compared to switching regulators, and offers high-performance power supply solutions.

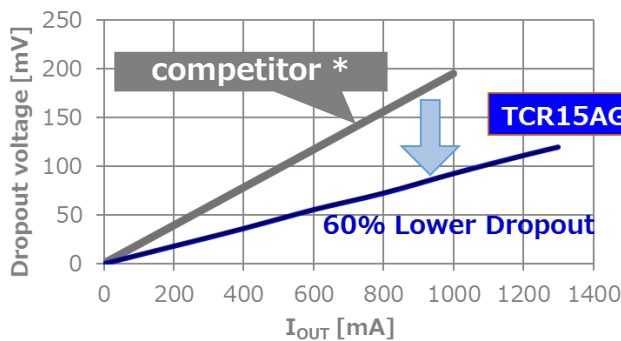
• Packages that are easy to use anywhere with a wide output voltage and current

Output voltages are fixed and variable, providing a wide range of products ranging from 0.55V to 5.0V. The output current range ranges from a minimum of 150 mA to a maximum of 1500 mA. The packaging offers a wide range of ultra-compact, high-tolerable-loss WCSP types suitable for high-density packaging and low-handling general-purpose lead types.

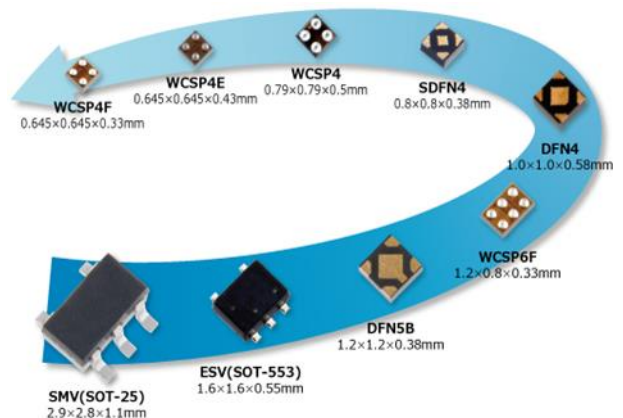
• Delivery of high-quality, stable products at plants in Japan and Thailand











Toshiba's LDO regulators can be delivered stable through high-quality and stable production at plants in Japan and Thailand. We will respond sincerely and promptly to rapid delivery troubles.

Toshiba's LDO regulators are suitable for such as noise-sensitive cameras, RF power supplies, MCU (CPU) power supplies, mobile device power supplies with strong powersaving demanding LDO applications. Please try it once.



*Compared to same kind products based on our survey as of today.



Characteristics / Package		VOUT	SOT-25 2.9 x 2.8mm t: 1.1mm 	SOT-553 1.6 x 1.6mm t: 0.55mm 	DFN5B 1.2 x 1.2mm t: 0.38mm 	WCSP6F 1.2 x 0.8mm t: 0.33mm 	DFN4E 1.0 x 1.0mm t: 0.58mm 	DFN4F 1.0 x 1.0mm t: 0.38mm 	DFN4D 1.0 x 1.0mm t: 0.37mm 	SDFN4E 0.8 x 0.8mm t: 0.38mm 	WCSP4E 0.645 x 0.645mm t: 0.43mm 	WCSP4F 0.645 x 0.645mm t: 0.33mm 
150mA	High voltage ($\leq 36V$) Low Iq	1.8V to 5.0V	TCR1HF series									
200mA	Low Iq	0.8V to 3.6V	TCR2LF series	TCR2LE series						TCR2LN series		
	Low noise High speed transient	1.0V to 5.0V	TCR2EF series	TCR2EE series						TCR2EN series		
300mA	Low Iq	0.8V to 5.0V							TCR3LM series			
	Ultra-Low Iq Bypass mode	0.8V to 5.0V	TCR3UF series				TCR3UM series					TCR3UG series
	Low dropout Wide range input voltage	0.8V to 5.0V							TCR3EM series			
	Low dropout High-speed transient	1.0V to 4.5V	TCR3DF series						TCR3DMxxA series		TCR3DG series	
	Ultra-low noise High-ripple rejection	0.9V to 4.5V						TCR3RM series				
420mA	Low dropout High-speed transient	1.0V to 4.5V									TCR4DG series	
500mA	Bias Rail Type (Nch) Ultra-low dropout High-ripple rejection	0.8V to 3.6V			TCR5BM series							
	Ultra-low noise High-ripple rejection	0.9V to 5.0V										TCR5RG series
800mA	Bias-rail Type (Nch) Ultra-low dropout High-ripple rejection	0.8V to 3.6V			TCR8BM series							
1300mA	Bias-rail Type (Nch) Ultra-low dropout High-speed transient High-ripple rejection	Adjustable 0.55V to 3.6V				TCR13AGADJ						
1500mA	Bias-rail Type (Nch) Ultra-low dropout High-speed transient High-ripple rejection	Adjustable 0.65V to 3.6V Fixed 0.6V to 3.6V				TCR15AG series						

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