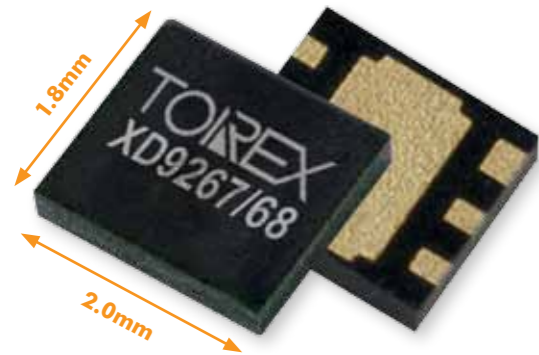


STEP-DOWN DC/DC

XD9267/68 36V 0.6A Step-Down DC/DC

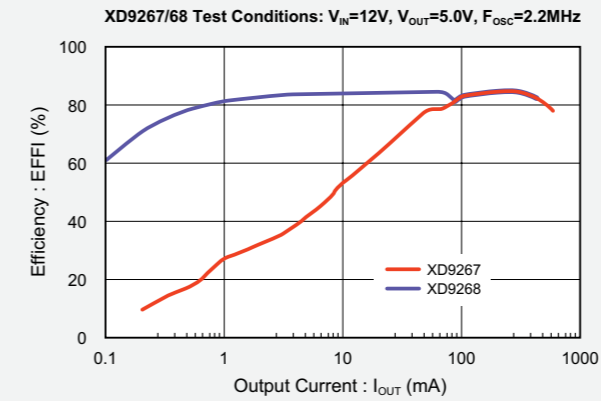
**AEC-Q100
Grade 2**
T_A(max): 105°C

- Wide 3V to 36V Input Range
- 46V Surge Voltage Protection (≤400ms)
- Space Saving Solution
 - Smallest-In-Class Package
 - Extremely Small-Value Inductor (3.3μH)
 - Minimised External Component Count
- Ultra-Low Quiescent Current
 - 16.5μA in Sleep Mode
 - 1.65μA in Standby Mode

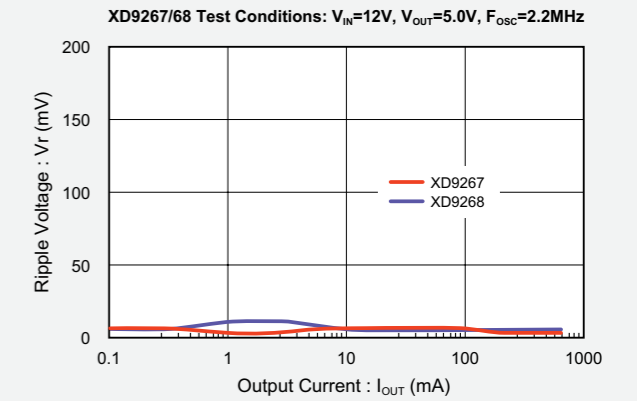


SERIES		XD9267	XD9268
Output Current		600mA	
ON Resistance	N-Ch	0.44Ω (typ)	
	P-Ch	1.12Ω (typ)	
Input Voltage Range		3.0V ~ 36V (Ab. Max 40V)	
FB Voltage Range		0.75V±1.5%	
Output Voltage Range		1.0V ~ 25.0V	
Switching Frequency		2.2MHz	
Quiescent Current (typ.)		290μA	16.5μA
Control Method		Fixed PWM Control	PWM/PFM Auto-switching
Max Duty Cycle		100%	
Protection Circuits		Current Limit Circuit, Short Circuit Protection, UVLO (2.7V), Thermal Shutdown	
Additional Features		Adjustable Soft-start Power Good Output Optional CL Discharge	
Op. Amb. Temperature		-40°C ~ +105°C	
Package		USP-6C or SOT89-5	

EFFICIENCY VS. OUTPUT CURRENT

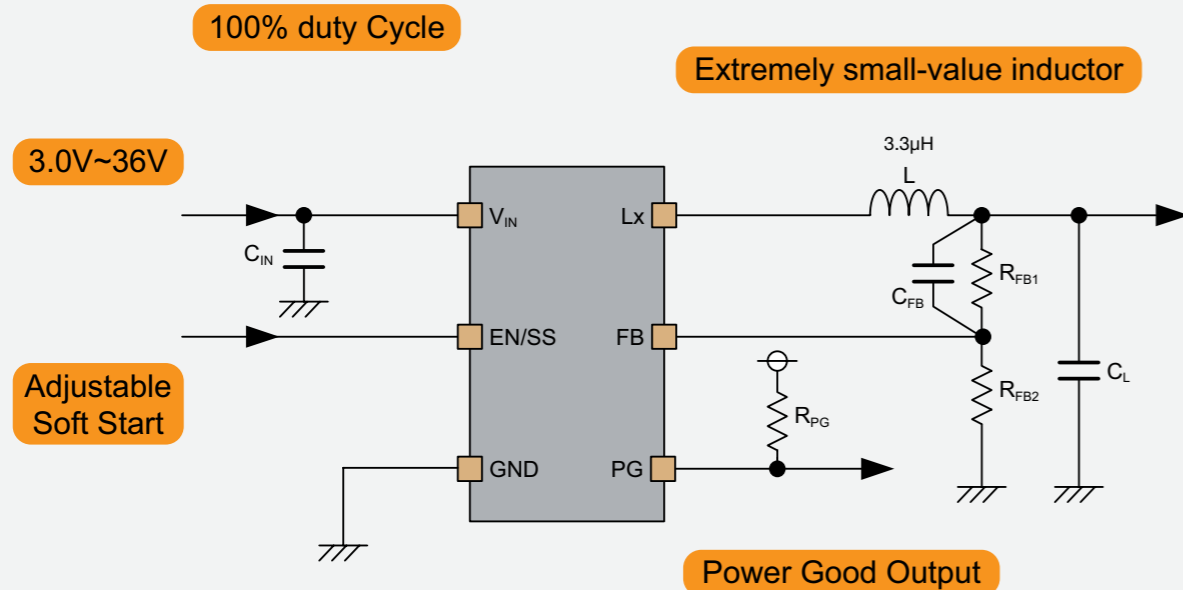


OUTPUT RIPPLE VS. OUTPUT CURRENT



TYPICAL APPLICATION CIRCUIT

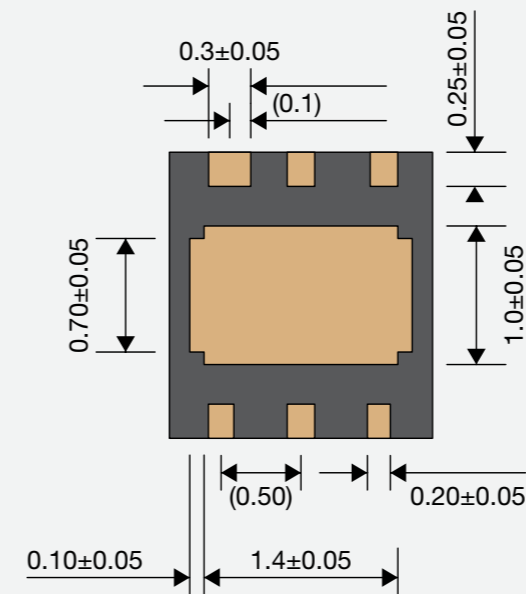
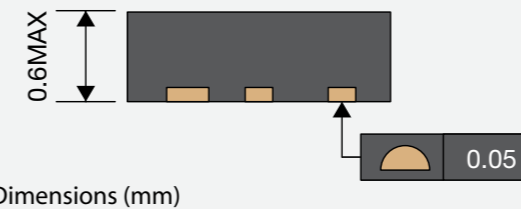
**WORLD'S
SMALLEST 36V
SYNCHRONOUS
BUCK DC/DC**



HIGH RELIABILITY PACKAGE

- High Power Dissipation
- Vibration and Shock Tested
- Exposed Terminal Ends

The USP-6C package has undergone stringent testing to meet the demanding automotive and industrial application requirements. Heat dissipation is enhanced with the use of a large DC/DC thermal pad and the terminal ends are exposed on the side of the package enabling Automated Visual Inspection (AVI).



Thermal Metric Data (JEDEC JESD51-7)

Ambient Temperature (°C)	Power Dissipation Pd (mW)	Thermal Resistance (°C/W)
25	1250	80.00
105	250	

Board Mount (T_{Jmax} = 125°C)

