

**7V Input , 500mA , Low Current Consumption , CMOS LDO****Description**

The AF6215 series are CMOS-based voltage LDOs with high output voltage accuracy, low current consumption and high ripple rejection. To prevent the destruction by over current, current limit circuit is included.

The series are very suitable for the battery-powered equipment such as RF applications and other systems requiring a quiet voltage source. Extends battery life in portable electronics

Applications

- Portable consumer equipment
- Wireless handsets, Smart Phones
- Bluetooth, Digital cameras and Digital audio
- PDAs and other handheld products

Device Information

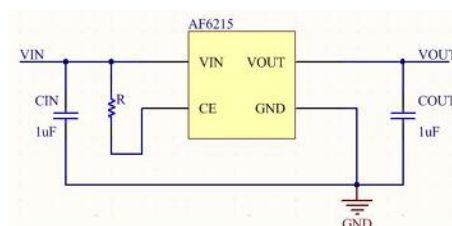
AF 6215 – XX C/D

① ② ③ ④

①	Standard
②	Product Name
③	Output Voltage e.g. 33 = 3.3V
④	C: SOT23-5L Package
	D: DFN1X1-4L Package

Features

- Input Voltage Range: 2V~7V
- Output Voltage Range: 1.2V~5V
- Output Current: 500mA
- Quiescent Current: 5uA
- Dropout Voltage: 150mV@150mA
- Voltage Accuracy: $\pm 2\%$ (Typ.)
- PSRR: 65dB at 1kHz
- Excellent Line and Load Transient Response
- Short-Circuit Protection
- Built-in Current Limiter

Typical Application**Pin Configuration**

Symbol	Package Pin	
	SOT23-5L	DFN1010-4L
VIN	1	4
GND	2	2
CE	3	3
NC	4	
OUT	5	1
EP can connect GND or Float		
 SOT23-5L DFN1X1-4L		



AF6215 Series



Absolute Maximum Ratings ⁽¹⁾

(Unless otherwise specified, all voltages are with respect to GND, TA=25°C)

PARAMETER		SYMBOL	RATINGS	UNITS
Input Voltage		V_{IN}	-0.3~8	V
Output Voltage		V_{OUT}	-0.3~ V_{IN}	V
Output Current		I_{OUT}	600	mA
Power Dissipation	SOT23-5	P_D	0.4	W
	DFN1X1-4L			
Operating Junction Temperature Range		T_J	-40~125	°C
Storage Temperature		T_{STG}	-40~125	°C
Lead Temperature(Soldering, 10 sec)		T_L	260	°C

(1). Stresses beyond those listed under absolute maximum ratings may cause permanent damage to the device. These are stress ratings only, and functional operation of the device at these or any other conditions beyond those indicated under recommended operating conditions is not implied. Exposure to absolute-maximum-rated conditions for extended periods may affect device reliability.



AF6215 Series

✚ Electronics Characteristics

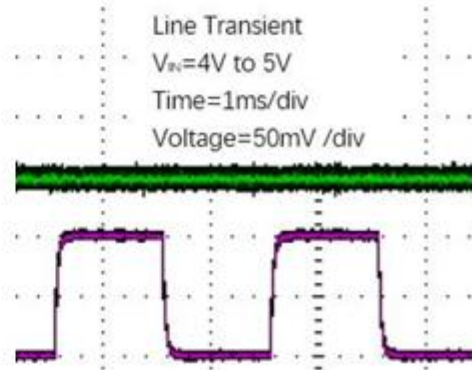
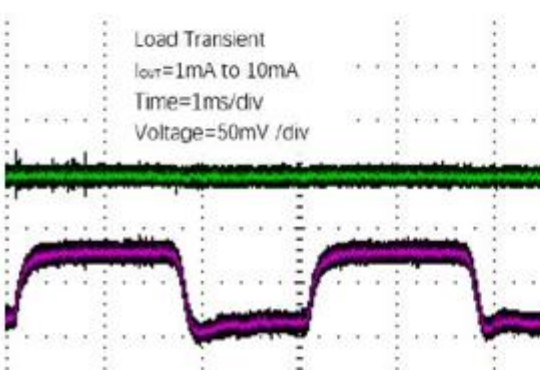
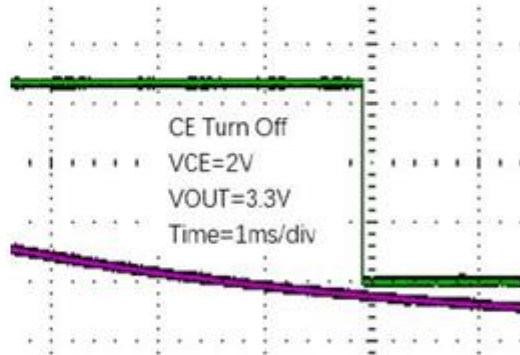
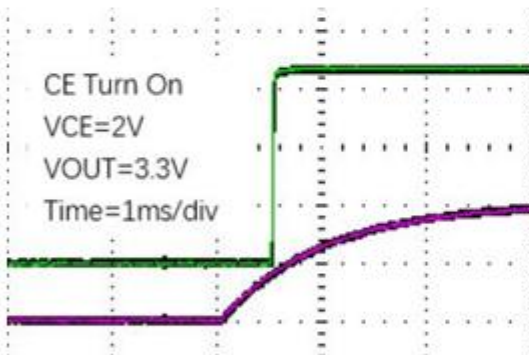
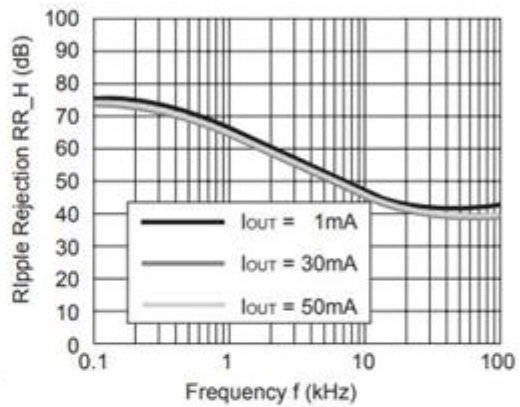
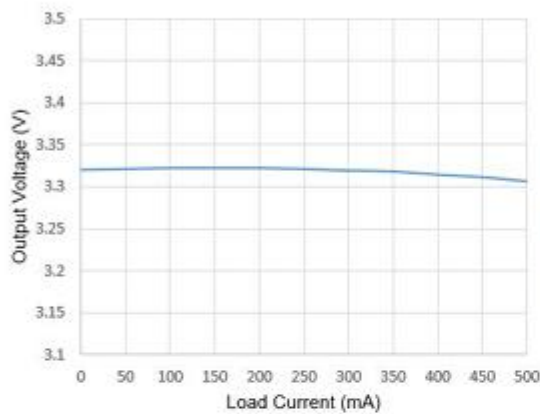
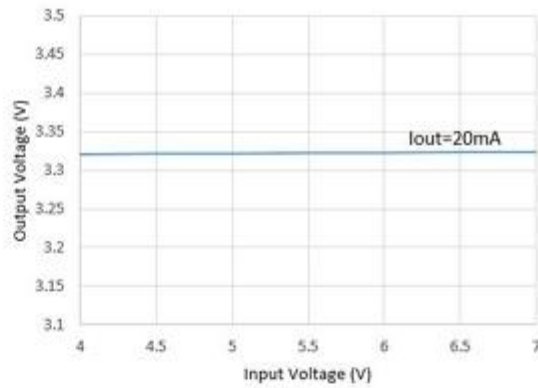
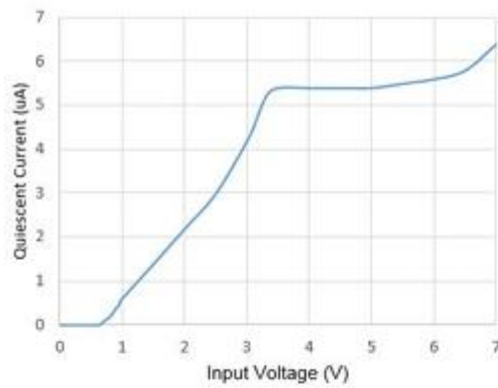
(Unless otherwise specified, $V_{IN}=V_{OUT}+1V$, $C_{IN}=C_{OUT}=1\mu F$, $T_A=25^\circ C$)

PARAMETER	SYMBOL	CONDITIONS	MIN	TYP	MAX	UNIT
Input Voltage	V_{IN}		2		7	V
Output Voltage	V_{OUT}		0.98 V_{OUT}	V_{OUT}	1.02 V_{OUT}	V
Dropout Voltage	V_{DIF}	$I_{OUT}=150mA$ $V_{OUT}>3.0V$		150		mV
Quiescent Current	I_Q	$I_{OUT}=0$		5	10	μA
Shutdown current	I_{CEL}	$V_{CE}=V_{SS}$			0.1	μA
Line Regulation	ΔV_{LINE}	$I_{OUT}=10mA$ $V_{OUT}+1V \leq V_{IN} \leq 6V$		0.01	0.2	%/V
Load Regulation	ΔV_{LOAD}	$V_{IN}=V_{OUT}+1V$ $1mA \leq I_{OUT} \leq 100mA$		10		mV
Temperature Coefficient	TC	$I_{OUT}=10mA$ $-40^\circ C < T_A < 125^\circ C$		100		ppm
Short Current	I_{SHORT}	$V_{OUT}=V_{SS}$		50		mA
Power Supply Rejection Ratio	PSRR	$I_{OUT}=5$ $0mA$	1kHz	65		dB
			10kHz	50		
CE "High"	$V_{CE} "H"$		1.5		V_{IN}	V
CE "Low"	$V_{CE} "L"$				0.3	V



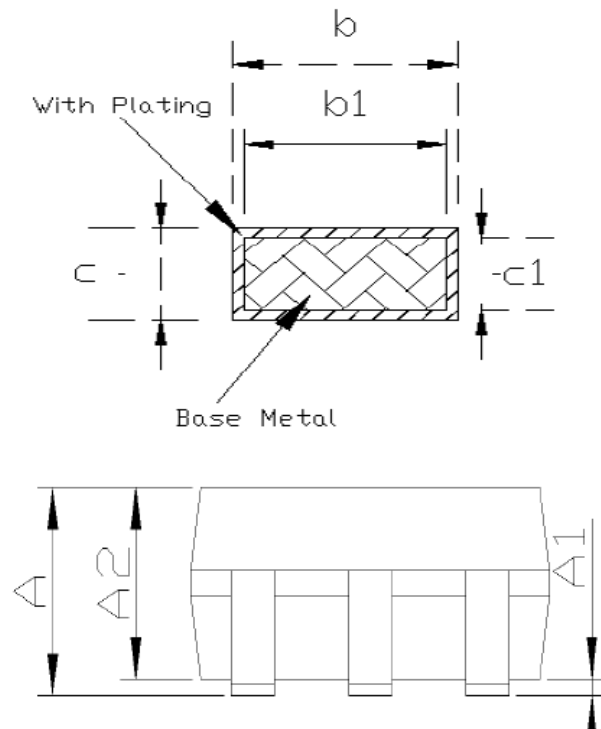
Typical Characteristics

(Unless otherwise specified, $V_{IN}=V_{OUT}+1V$, $C_{IN}=C_{OUT}=1\mu F$, $T_A=25^\circ C$)



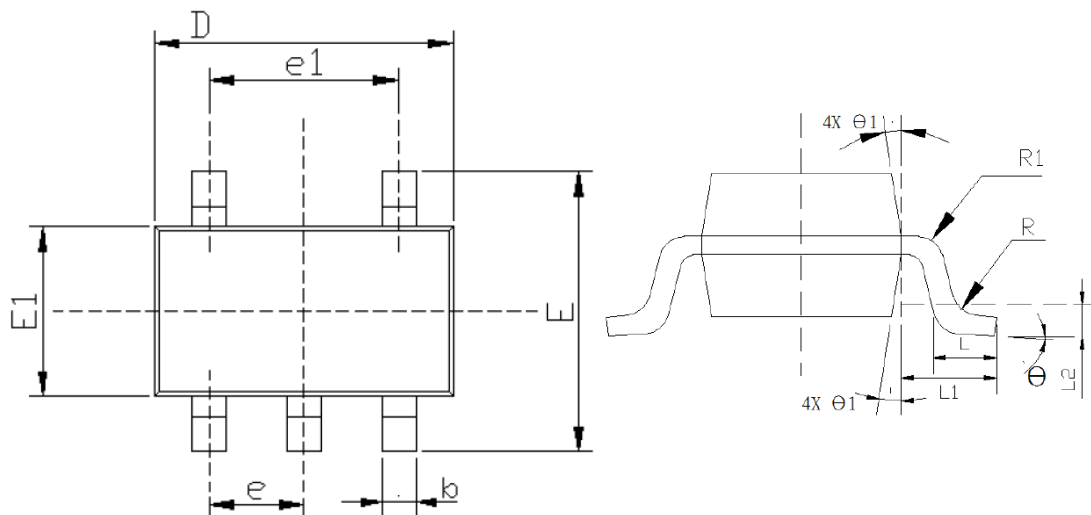


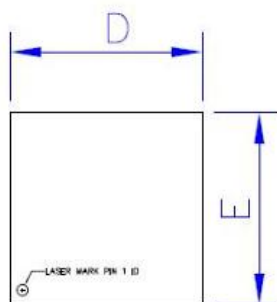
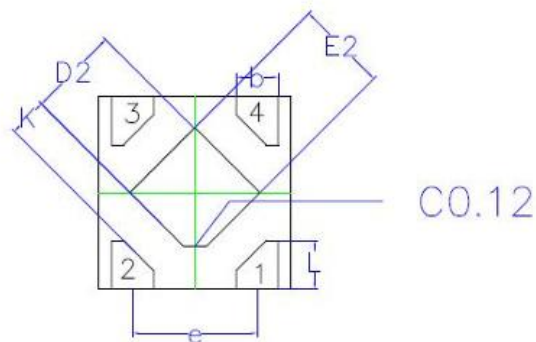
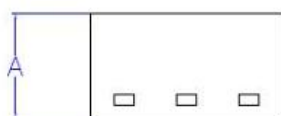
Package Information



Common Dimensions (Units of Measure=Millimeter)			
SYMBOL	MINIMUM	NOMINAL	MAXIMUM
A	-	-	1.35
A1	0	-	0.15
A2	1.00	1.10	1.20
b	0.35	-	0.45
b1	0.32	-	0.38
c	0.14	-	0.20
c1	0.14	0.15	0.16
D	2.82	2.92	3.02
E	2.60	2.80	3.00
E1	1.526	1.626	1.726
e	0.90	0.95	1.00
e1	1.80	1.90	2.00
L	0.35	0.45	0.60
L1	0.6 REF		
L2	0.25 REF		
R	0.10	-	-
R1	0.10	-	0.25
θ	0°	4°	8°
θ 1	5°	10°	15°

SOT23-5L



DFN1010-4L

TOP VIEW

BOTTOM VIEW

SIDE VIEW

COMMON DIMENSION (MM)			
PKG	DFN1010		
REF.	MIN.	NOM.	MAX
A	0.34	0.37	0.40
b	0.17	0.22	0.27
D	0.95	1.00	1.05
E	0.95	1.00	1.05
D2	0.43	0.48	0.53
E2	0.43	0.48	0.53
L	0.20	0.25	0.30
e	0.60	0.65	0.70
K	0.15	—	—

 Order Information

Voltage	DFN1010-4L	Marking	Shipping	SOT23-5L	Marking	Shipping
1.2	√	1V2	Tape and Reel, 10K	√	1512	Tape and Reel, 3K
1.8	√	1V8		√	1518	
2.5	√	2V5		√	1525	
2.8	√	2V8		√	1528	
3.0	√	3V0		√	1530	
3.3	√	3V3		√	1533	
3.6	√	3V6		√	1550	



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