



AP5724/5/6 family of White LED backlighting boost converters

Description

The AP5724/5/6 is a family of PWM boost DC/DC converters (integrated switch) specifically designed to drive white LEDs with a constant current for backlighting small LCD screens.

The device can drive up to 6 LEDs in series from a Li-Ion cell; and provides identical LED currents resulting in uniform brightness and eliminates the need for ballast resistors.

For driving a high number of LEDs, devices support single feedback of parallel connected multiple strings of LEDs

The AP5724/5/6 switches at a fixed 1.2MHz that allows the use of tiny external components. A low 0.1/0.25/0.31V feedback voltage minimizes power loss in the current setting resistor for better efficiency.



The Diodes advantage

- **High Efficiency: 84% Typical**
Longer battery life
- **Fast 1.2MHz Switching Frequency**
Smaller inductor and capacitor size
- **Current limit and UVLO protections**
Extra protection for safe operation
- **3 choices of Vf_{fb} (0.1, 0.25 & 0.31V)**
Offer extra design flexibility to designers
- **Package SOT26, TSOT23-6 and DFN2020C-6**
Offers industrial standard package (SOT26), thin package (TSOT23-6) and low profile and space saving package (DFN2020C-6)
- **Over Voltage Protect & soft-start function built-in**
Extra protection for safe operation

Typical application areas

- Portable navigation device/GPS receiver
- Digital camera/camcorder
- Digital radio display
- Digital photo frame
- MP4/Portable media player
- Mobile phones/PDA's

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Diodes Backlighting ICs

Part number	Input Voltage V	Max output Voltage V	Frequency (MHz)	Efficiency (%)	Quiescent Current (mA)	Standby Current μ A	Switch resistance Ω	Dimming	OVP	Soft start	VFB (V)	T _A (°C)	Package
AP3154A	2.7 - 5.5	-	1.2/0.6/1.8	88	1.2	1	-	SDI	No	No	-	-40 ~ +85	DFN3030-12
AP3156	2.7 - 5.5	-	2/1/05	88	1.5	1	-	SDI	No	No	-	-40 ~ +85	QFN4040-16
ZXLD1100	2.5 - 5.5	28	1	80	0.06	0.5	1.5	DC/PWM	No	No	-	-40 ~ +85	SC70-6
ZXLD1101	2.5 - 5.5	28	1	80	0.06	0.5	1.5	DC/PWM	No	No	-	-40 ~ +85	TSOT23-5
ZXLD1937	2.5 - 5.5	28	1	80	0.06	0.5	1.5	DC/PWM	No	No	-	-40 ~ +85	TSOT23-5
AP5724	2.7-5.5	26	1.2	84	2	1	0.95	DC/PWM	Yes	Yes	0.1	-40 ~ +85	SOT26 TSOT23-6 DFN2020C-6
AP5725	2.7-5.5	26	1.2	84	2	1	0.95	DC/PWM	Yes	Yes	0.25	-40 ~ +85	SOT26 TSOT23-6 DFN2020C-6
AP5726	2.7-5.5	26	1.2	84	2	1	0.95	DC/PWM	Yes	Yes	0.31	-40 ~ +85	SOT26 TSOT23-6 DFN2020C-6

To find out more information:

Product page <http://www.diodes.com/products/catalog/detail.php?item-id=1685>

Datasheet <http://www.diodes.com/datasheets/AP5724.pdf>

<http://www.diodes.com/datasheets/AP5725.pdf>

<http://www.diodes.com/datasheets/AAP5726.pdf>

Ordering information

Part number	Part mark	Bulk quantity	Package	Reel size
AP5724WG-7	FB	3kpcs/Tape & reel	SOT26	7"
AP5724WUG-7	GB	3kpcs/Tape & reel	TSOT23-6	7"
AP5724FDCG-7	GB	3kpcs/Tape & reel	DFN2020-C26	7"
AP5725WG-7	FC	3kpcs/Tape & reel	SOT26	7"
AP5725WUG-7	GC	3kpcs/Tape & reel	TSOT23-6	7"
AP5725FDCG-7	GC	3kpcs/Tape & reel	DFN2020-C26	7"
AP5726WG-7	FD	3kpcs/Tape & reel	SOT26	7"
AP5726WUG-7	GD	3kpcs/Tape & reel	TSOT23-6	7"
AP5726FDCG-7	GD	3kpcs/Tape & reel	DFN2020-C26	7"

All variants are in packages that are "Green" Molding Compound (No Br, Sb) with Lead Free Finish/RoHS Compliant (Note 1)

Notes: 1. EU Directive 2002/95/EC (RoHS). All applicable RoHS exemptions applied, see EU Directive 2002/95/EC Annex Notes.