

OSRAM OSTAR Series

LEW E2A/LEW E2B (4-Chip)

Basic Electronic Characteristics for LED Circuit and Driver Calculations

Forward Voltage		Forward Current	
Typical	Maximum	Chart Calculation	
13.0VDC	14.5VDC	350mA	

LED Characteristics		LED Circuit Configuration			Driver Requirements			MAGTECH LED Driver Suggestion
Forward Voltage(<i>vF</i>)	Forward Current(<i>iF</i>)	# of LEDs in Series	# of Parallels	Total LEDs	Output Voltage	Output Current	Output Power	
13	0.35	1	1	1	13	0.35	4.55	L07U
13	0.35	2	1	2	26	0.35	9.1	LA1012
13	0.35	1	2	2	13	0.7	9.1	LA1012
13	0.35	2	2	4	26	0.7	18.2	LP1020
13	0.35	1	3	3	13	1.05	13.65	LP1017
13	0.35	2	3	6	26	1.05	27.3	LP1040
13	0.35	1	4	4	13	1.4	18.2	LP1020
13	0.35	2	4	8	26	1.4	36.4	LP1040
VDC	mA				VDC	mA	Watts	

Note 1: These characteristics, configurations, and suggestions are based on OSRAM's LED Characteristics.

Note 2: The **Typical Voltage** was used in these calculations.

Note 3: These charts and suggestions are for **Reference Use Only**.

Note 4: For further details contact your **Magtech Account Manager** to ensure and verify the best **Magtech LED Driver Solution** for your application and circuit configuration.

OSRAM OSTAR Series

LEW E2A/LEW E2B (4-Chip)

Basic Electronic Characteristics for LED Circuit and Driver Calculations

Forward Voltage		Forward Current	
Typical	Maximum	Chart Calculation	
15.2VDC	17.2VDC	700mA	

LED Characteristics		LED Circuit Configuration			Driver Requirements			MAGTECH LED Driver Suggestion
Forward Voltage(vF)	Forward Current(iF)	# of LEDs in Series	# of Parallels	Total LEDs	Output Voltage	Output Current	Output Power	
15.2	0.7	1	1	1	15.2	0.7	10.64	LA1012
15.2	0.7	2	1	2	30.4	0.7	21.28	LP1025
15.2	0.7	1	2	2	15.2	1.4	21.28	LP1025
15.2	0.7	2	2	4	30.4	1.4	42.56	LP1090
15.2	0.7	1	3	3	15.2	2.1	31.92	LP1040
15.2	0.7	2	3	6	30.4	2.1	63.84	LP1090
15.2	0.7	1	4	4	15.2	2.8	42.56	LP1060
15.2	0.7	2	4	8	30.4	2.8	85.12	LP1090
VDC	mA				VDC	mA	Watts	

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OSRAM OSTAR Series

LEW E2A/LEW E2B (4-Chip)

Basic Electronic Characteristics for LED Circuit and Driver Calculations

Forward Voltage		Forward Current	
Typical	Maximum	Chart Calculation	
16.2VDC	19.8VDC	1000mA	

LED Characteristics		LED Circuit Configuration			Driver Requirements			MAGTECH LED Driver Suggestion
Forward Voltage(<i>vF</i>)	Forward Current(<i>iF</i>)	# of LEDs in Series	# of Parallels	Total LEDs	Output Voltage	Output Current	Output Power	
16.2	1	1	1	1	16.2	1	16.2	LP1020
16.2	1	2	1	2	32.4	1	32.4	LP1040
16.2	1	1	2	2	16.2	2	32.4	LP1020
16.2	1	2	2	4	32.4	2	64.8	LP1040
16.2	1	1	3	3	16.2	3	48.6	LP1060
VDC	mA				VDC	mA	Watts	

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OSRAM OSTAR Series

LEW E3A/LEW E3B (6-Chip)

Basic Electronic Characteristics for LED Circuit and Driver Calculations

Forward Voltage		Forward Current	
Typical	Maximum	Chart Calculation	
19.5VDC	22.0VDC	350mA	

LED Characteristics		LED Circuit Configuration			Driver Requirements			MAGTECH LED Driver Suggestion
Forward Voltage(vF)	Forward Current(iF)	# of LEDs in Series	# of Parallels	Total LEDs	Output Voltage	Output Current	Output Power	
19.5	0.35	1	1	1	19.5	0.35	6.825	LA1012
19.5	0.35	1	2	2	19.5	0.7	13.65	LP1017
19.5	0.35	1	3	3	19.5	1.05	20.475	LP1025
19.5	0.35	1	4	4	19.5	1.4	27.3	LP1040
VDC	mA				VDC	mA	Watts	

Note 1: These characteristics, configurations, and suggestions are based on **OSRAM's LED Characteristics**.

Note 2: The **Typical Voltage** was used in these calculations.

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OSRAM OSTAR Series

LEW E3A/LEW E3B (6-Chip)

Basic Electronic Characteristics for LED Circuit and Driver Calculations

Forward Voltage		Forward Current	
Typical	Maximum	Chart Calculation	
22.0VDC	25.8VDC	700mA	

LED Characteristics		LED Circuit Configuration			Driver Requirements			MAGTECH
Forward Voltage(vF)	Forward Current(iF)	# of LEDs in Series	# of Parallels	Total LEDs	Output Voltage	Output Current	Output Power	LED Driver Suggestion
22	0.7	1	1	1	22	0.7	15.4	LP1017
22	0.7	1	2	2	22	1.4	30.8	LP1040
22	0.7	1	3	3	22	2.1	46.2	LP1060
22	0.7	1	4	4	22	2.8	61.6	LP1090
VDC	mA				VDC	mA	Watts	

Note 1: These characteristics, configurations, and suggestions are based on **OSRAM's LED Characteristics**.

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OSRAM OSTAR Series

LEW E3A/LEW E3B (6-Chip)

Basic Electronic Characteristics for LED Circuit and Driver Calculations

Forward Voltage		Forward Current	
Typical	Maximum	Chart Calculation	
24.5VDC	29.8VDC	1000mA	

LED Characteristics		LED Circuit Configuration			Driver Requirements			MAGTECH LED Driver Suggestion
Forward Voltage(<i>vF</i>)	Forward Current(<i>iF</i>)	# of LEDs in Series	# of Parallels	Total LEDs	Output Voltage	Output Current	Output Power	
24.5	1	1	1	1	24.5	1	24.5	LP1040
24.5	1	1	2	2	24.5	2	49	LP1090
24.5	1	1	3	3	24.5	3	73.5	LP1090
VDC	mA				VDC	mA	Watts	

Note 1: These characteristics, configurations, and suggestions are based on **OSRAM's LED Characteristics**.

Note 2: The **Typical Voltage** was used in these calculations.

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