

Ordering Information

Device	Package Options	
	TO-92	TO-243AA (SOT-89)
CL25	CL25N3-G	CL25N8-G

-G indicates package is RoHS compliant ('Green')



Thermal Characteristics

Package	Power Dissipation @ $T_A = 25^\circ\text{C}$ (W)	θ_{JC} ($^\circ\text{C/W}$)	θ_{JA} ($^\circ\text{C/W}$)
TO-92	0.6	125	170
TO-243AA (SOT-89)	1.3*	15	78*

* Mounted on FR4 board; 25mm x 25mm x 1.57mm

Absolute Maximum Ratings

Parameter	Value
Operating voltage, V_{A-B}	100V
Operating junction temperature, T_J	-40°C to $+125^\circ\text{C}$
Storage temperature, T_S	-55°C to $+150^\circ\text{C}$

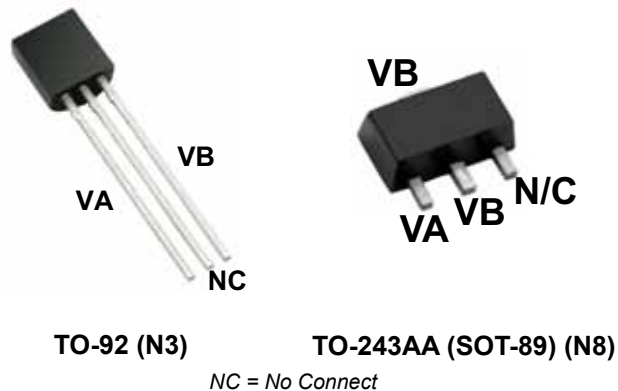
Absolute Maximum Ratings are those values beyond which damage to the device may occur. Functional operation under these conditions is not implied. Continuous operation of the device at the absolute rating level may affect device reliability. All voltages are referenced to device ground.

Electrical Characteristics

($T_A = 25^\circ\text{C}$ unless otherwise specified)

Sym	Parameter	Min	Typ	Max	Units	Conditions
V_{A-B}	Operating voltage	5.0	-	90	V	---
I_{A-B}	Current regulation	22.5	25	27.5	mA	$V_{A-B} = 5.0\text{V} - 90\text{V}$
$\Delta I_{A-B}/\Delta T$	I_{A-B} temperature coefficient	-	0.01	-	$\%/^\circ\text{C}$	$V_{A-B} = 45\text{V}$, $T_J = -40^\circ\text{C}$ to $+100^\circ\text{C}$
T_J	Operating junction temperature	-40	-	125	$^\circ\text{C}$	---
R_{A-B}	Dynamic resistance	-	300	-	k Ω	---

Pin Configuration



Product Marking



YY = Year Sealed
WW = Week Sealed
— = "Green" Packaging

Package may or may not include the following marks: Si or

TO-92 (N3)

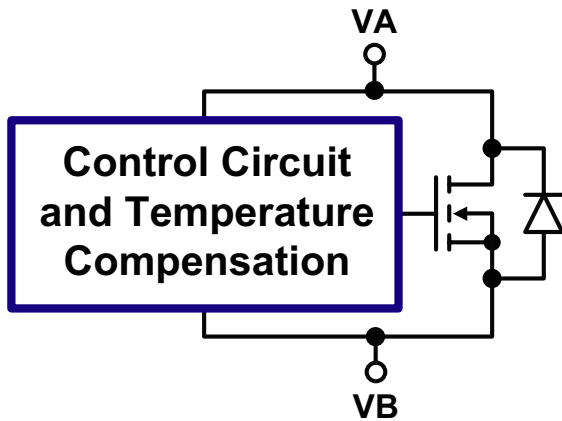


W = Code for week sealed
— = "Green" Packaging

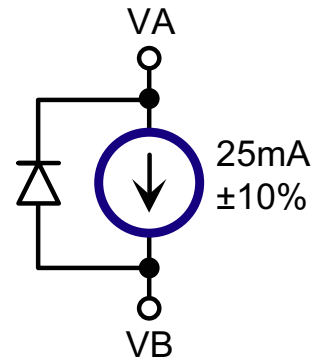
Package may or may not include the following marks: Si or

TO-243AA (SOT-89) (N8)

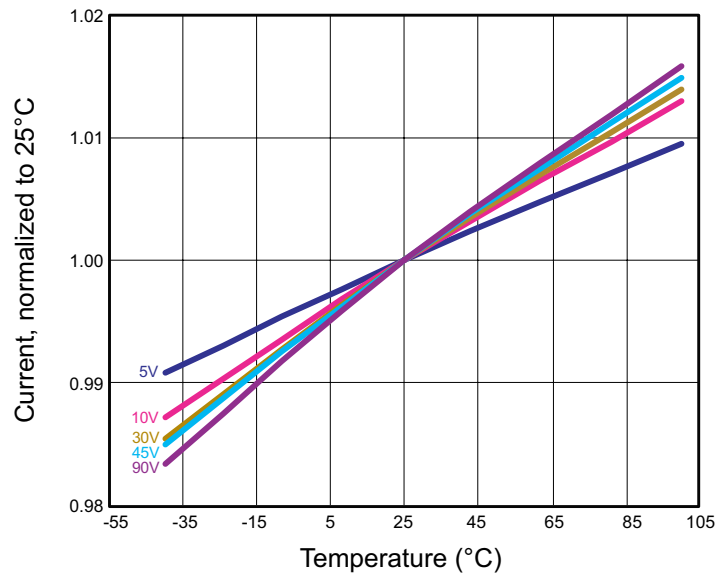
Functional Circuit Diagram



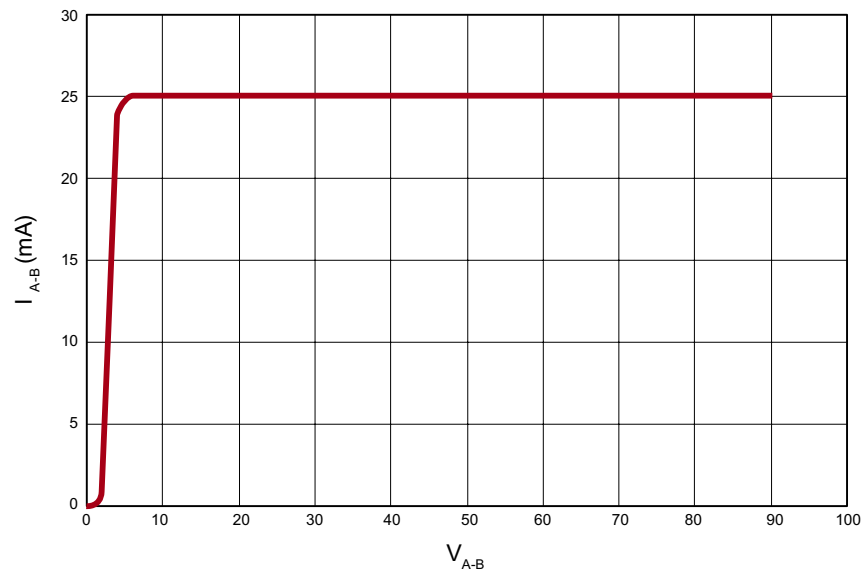
Equivalent Block Diagram



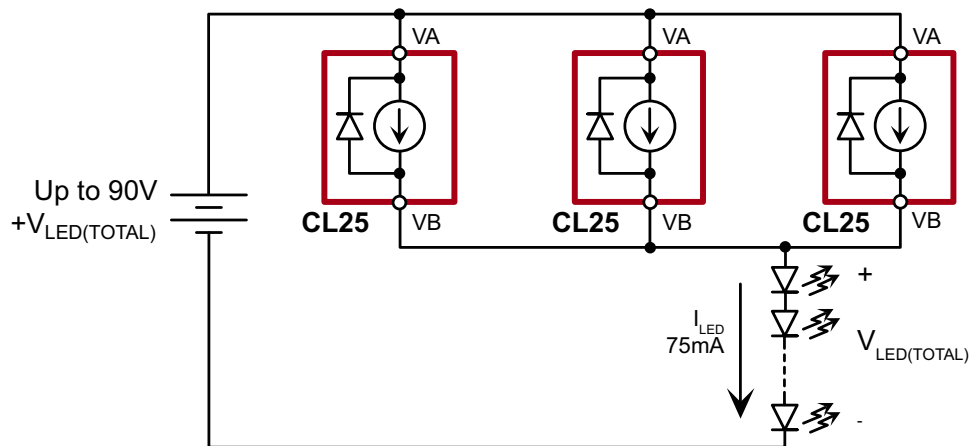
Temperature Characteristics



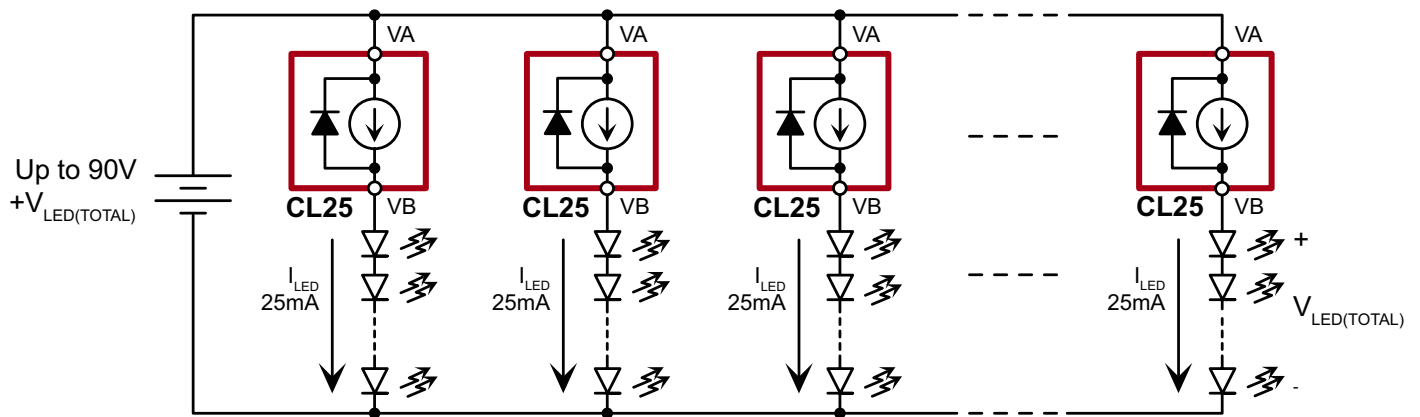
Output Current vs Voltage



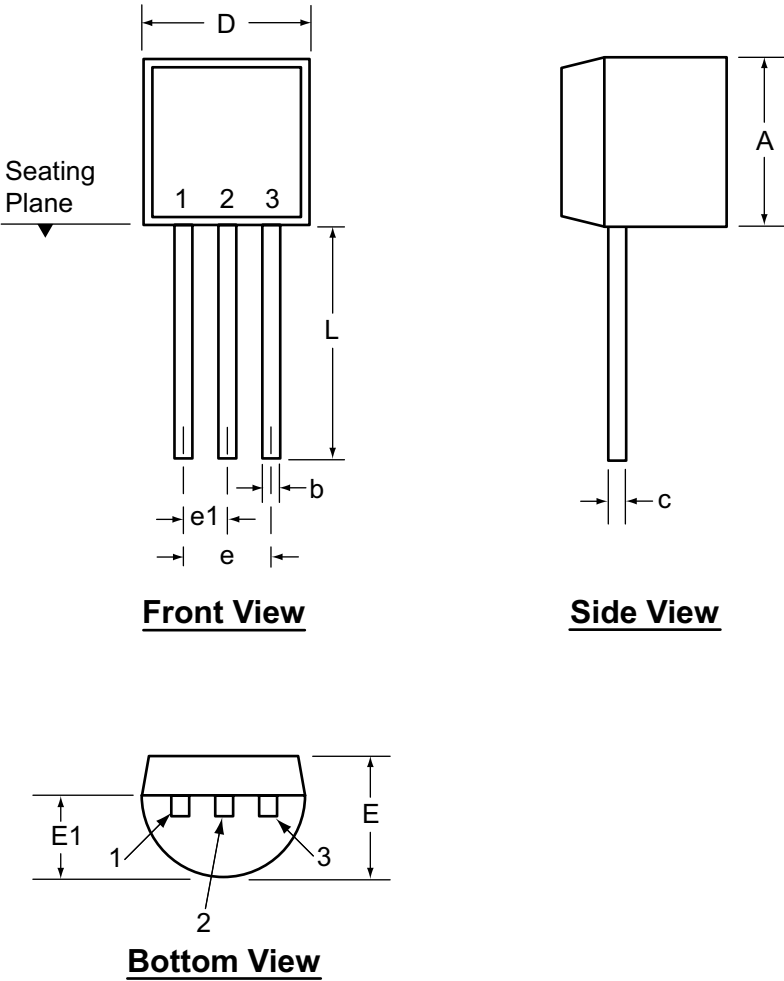
CL25 for Multiple LED Strings



CL25 for Higher Current



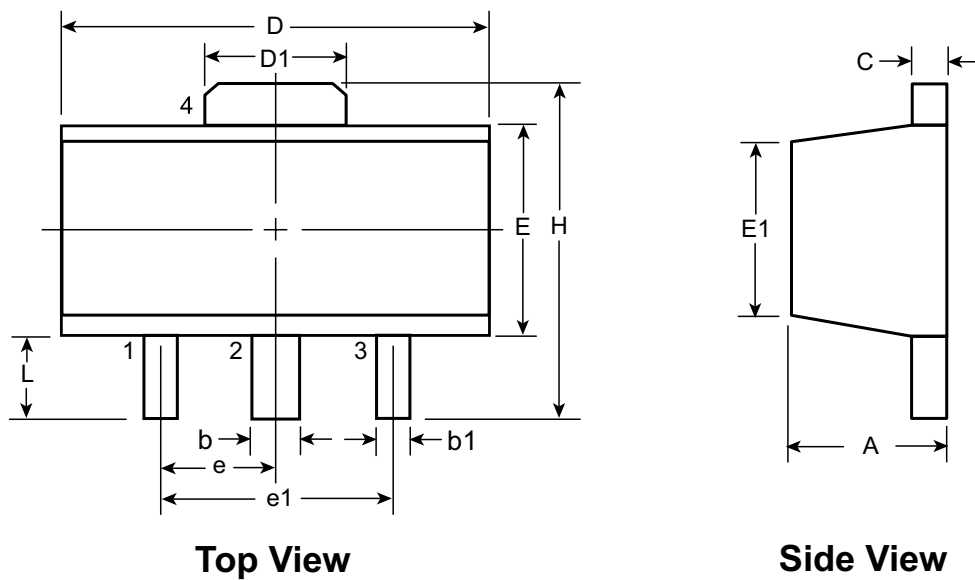
3-Lead TO-92 Package Outline (N3)



Symbol		A	b	c	D	E	E1	e	e1	L
Dimensions (inches)	MIN	.170	.014†	.014†	.175	.125	.080	.095	.045	.500
	NOM	-	-	-	-	-	-	-	-	-
	MAX	.210	.022†	.022†	.205	.165	.105	.105	.055	.610*

JEDEC Registration TO-92.
* This dimension is not specified in the JEDEC drawing.
† This dimension differs from the JEDEC drawing.
Drawings not to scale.
Supertex Doc.#: DSPD-3TO92N3, Version E041009.

3-Lead TO-243AA (SOT-89) Package Outline (N8)



Symbol		A	b	b1	C	D	D1	E	E1	e	e1	H	L
Dimensions (mm)	MIN	1.40	0.44	0.36	0.35	4.40	1.62	2.29	2.00 [†]	1.50 BSC	3.00 BSC	3.94	0.73 [†]
	NOM	-	-	-	-	-	-	-	-			-	-
	MAX	1.60	0.56	0.48	0.44	4.60	1.83	2.60	2.29			4.25	1.20

JEDEC Registration TO-243, Variation AA, Issue C, July 1986.

[†] This dimension differs from the JEDEC drawing

Drawings not to scale.

Supertex Doc. #: DSPD-3TO243AAN8, Version F111010.

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