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°C (W)	θ_{JC} (°C/W)	θ_{JA} (°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*

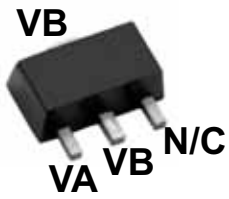
Absolute Maximum Ratings

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

Pin Configuration

TO-92 (N3)



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

NC = No Connect

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)

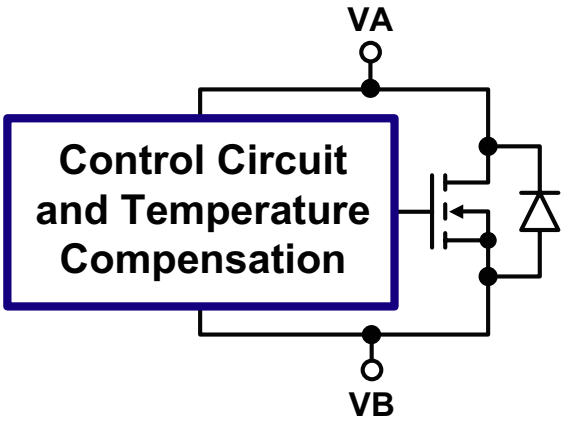
Electrical Characteristics

(T_A = 25°C unless otherwise specified)

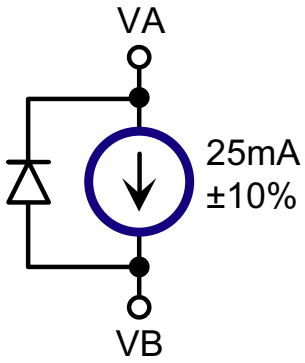
Sym	Parameter	Min	Typ	Max	Units	Conditions
V_{A-B}	Operating voltage	5.0	-	90	V	---
I_{A-B}	Current regulation	22.5	25	27.5	mA	V_{A-B} = 5.0V - 90V
$\Delta I_{A-B}/\Delta T$	I_{A-B} temperature coefficient	-	0.01	-	%/°C	V_{A-B} = 45V, T_J = -40°C to +100°C
T_J	Operating junction temperature	-40	-	125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

Downloaded from Arrow.com.

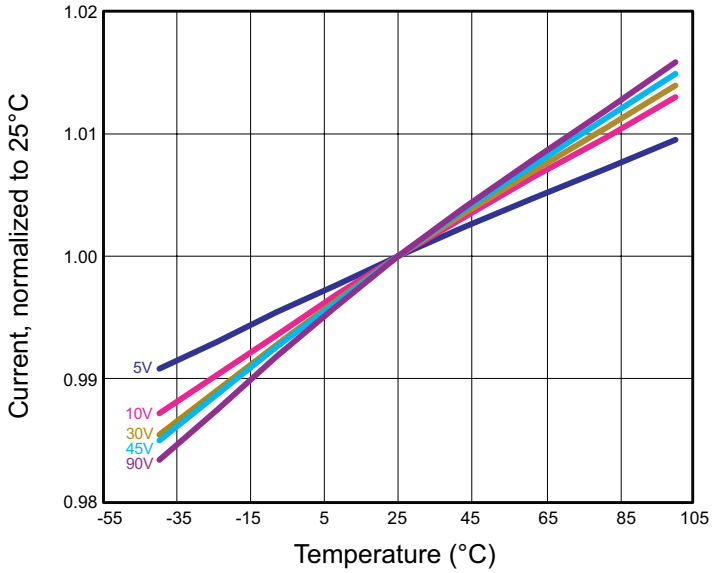
Functional Circuit Diagram



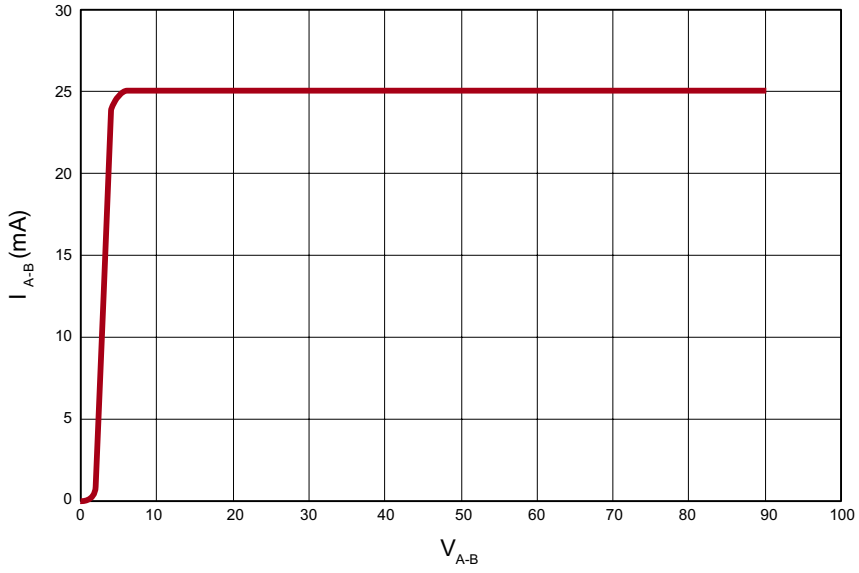
Equivalent Block Diagram



Temperature Characteristics

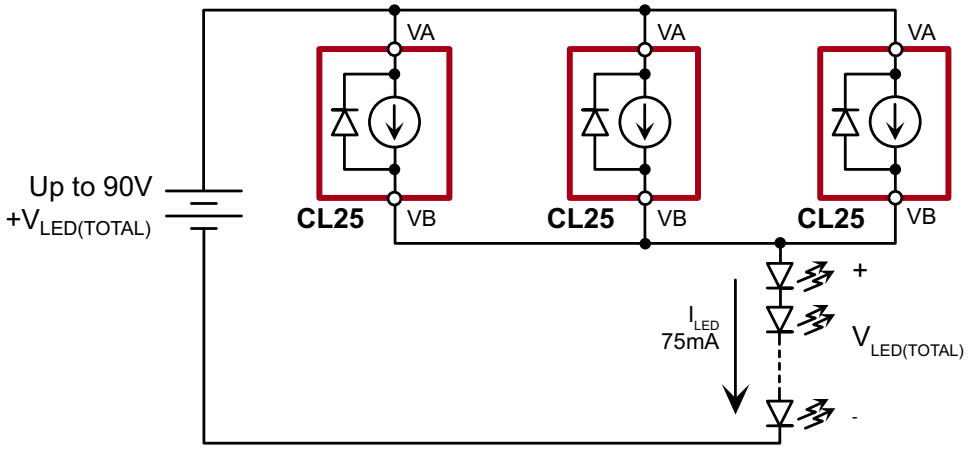


Output Current vs Voltage

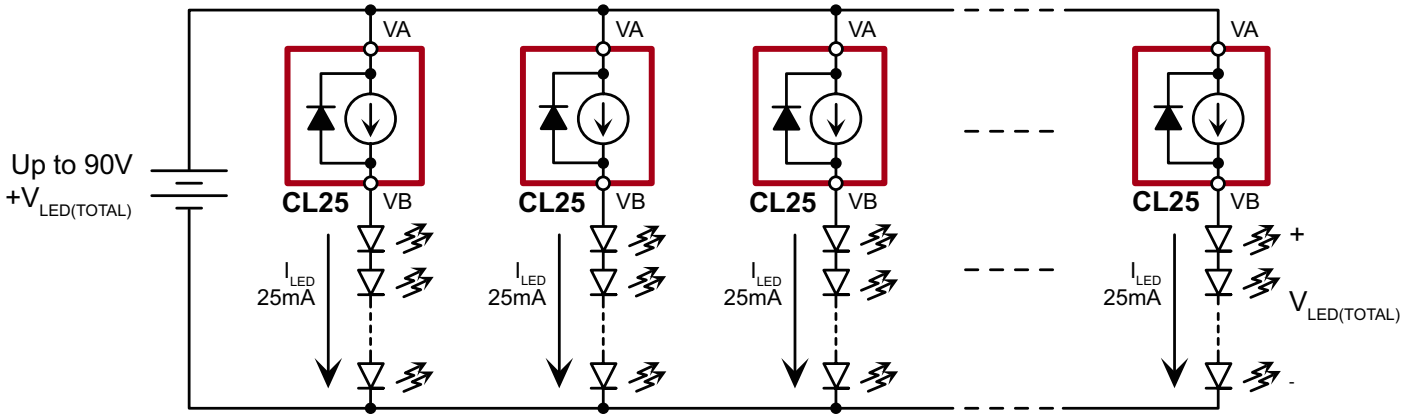


Downloaded from Arrow.com.

CL25 for Multiple LED Strings

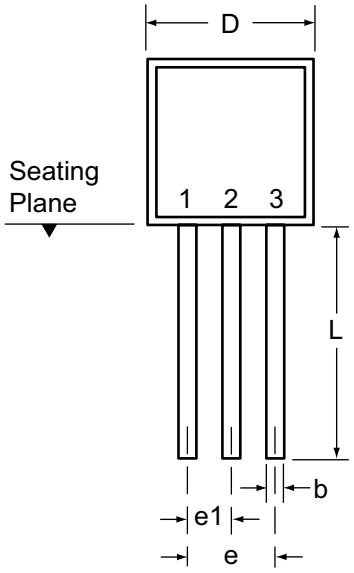


CL25 for Higher Current

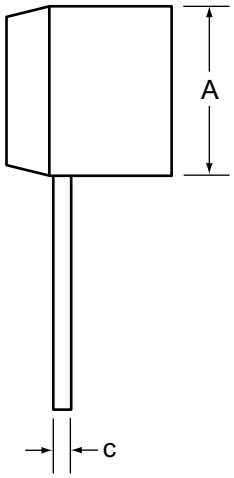


Downloaded from Arrow.com.

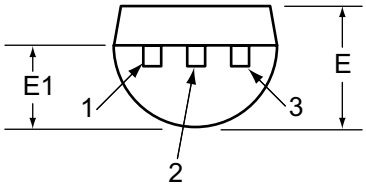
3-Lead TO-92 Package Outline (N3)



Front View



Side View



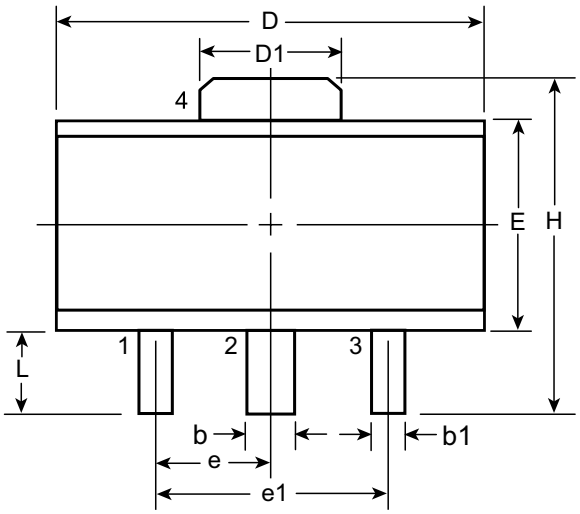
Bottom View

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*

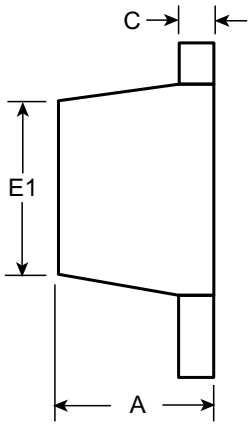
JEDEC Registration TO-92.
** This dimension is not specified in the JEDEC drawing.*
† This dimension differs from the JEDEC drawing.
Drawings not to scale.
***Supertex Doc.#:** DSPD-3TO92N3, Version E041009.*

Downloaded from Arrow.com.

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



Top View



Side View

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.*

Supertex inc. does not recommend the use of its products in life support applications, and will not knowingly sell them for use in such applications unless it receives an adequate "product liability indemnification insurance agreement." **Supertex inc.** does not assume responsibility for use of devices described, and limits its liability to the replacement of the devices determined defective due to workmanship. No responsibility is assumed for possible omissions and inaccuracies. Circuitry and specifications are subject to change without notice. For the latest product specifications refer to the **Supertex inc.** (website: http//www.supertex.com)

©2011 **Supertex inc.** All rights reserved. Unauthorized use or reproduction is prohibited.

Supertex inc.
1235 Bordeaux Drive, Sunnyvale, CA 94089
Tel: 408-222-8888
www.supertex.com

Downloaded from Arrow.com.