

# 130V, 10~50mA 温度补偿的定电流 LED 驱动器

Preliminary

## 特色

- 7.5~130V 工作电压范围( $V_{A-B}$ )
- 7.5~130V 时的 $\pm 5\%$ 电流精确度
- $0.01\%/^{\circ}\text{C}$  温度系数
- 外部 R 电流设置
- 可并联高电流
- 过温保护(OTP)
- 专利申请中

## 应用

- 固态照明
- GU10/E14/E11 蜡烛灯
- 工业用灯标志

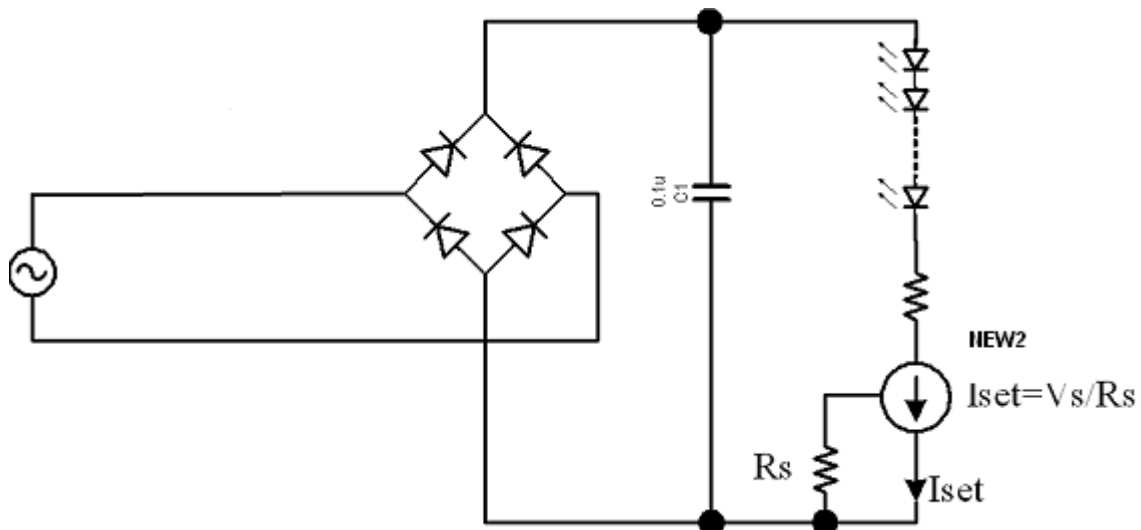
## 描述

NEW2 具有高压，温度补偿，定电流特性。NEW2 的目的是提供输入电压 7.5~130V 以下有 $\pm 5\%$ 精确度的定电流。此外电流设置只需要一个外部电阻。

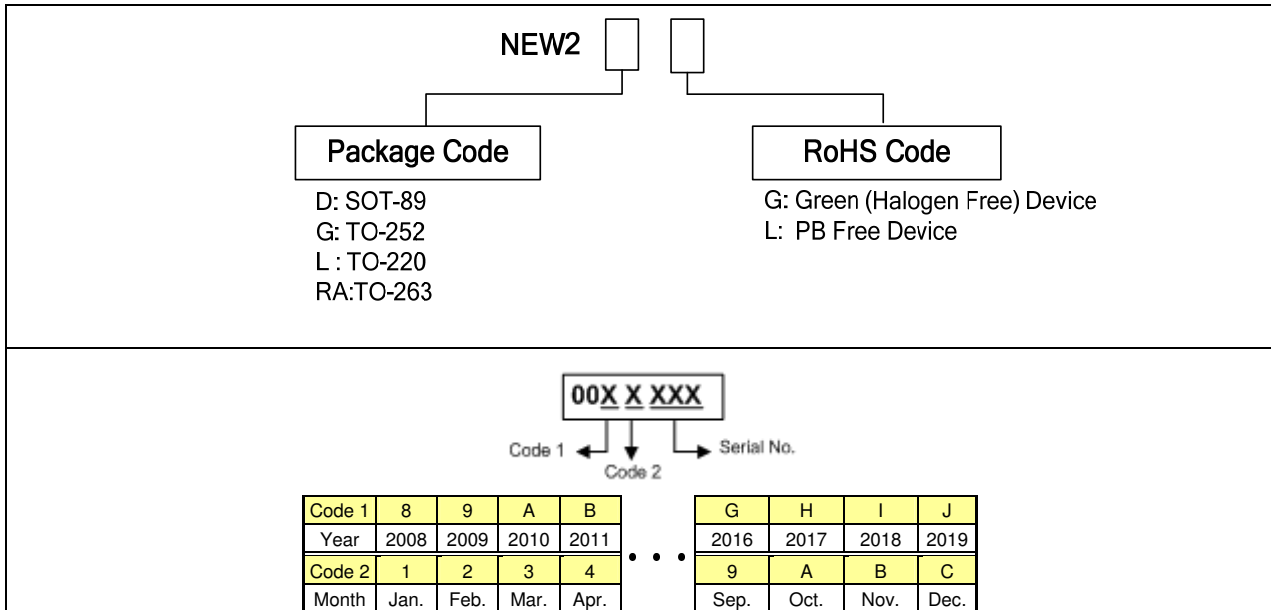
NEW2 拥有过温保护，当驱动器的最大温度超过安全范围时，驱动电流会降低到 10mA 直到温度降到安全范围以内。

NEW2 的典型运用是具有电流设置的定电流 LED 驱动器。多个 NEW2 也可以并联使用以提供较高的电流。NEW2 目前有 SOT-89, TO-252, TO-263 与 TO-220 四种封装

## 应用线路



## 订购和标识信息



## 极限工作范围

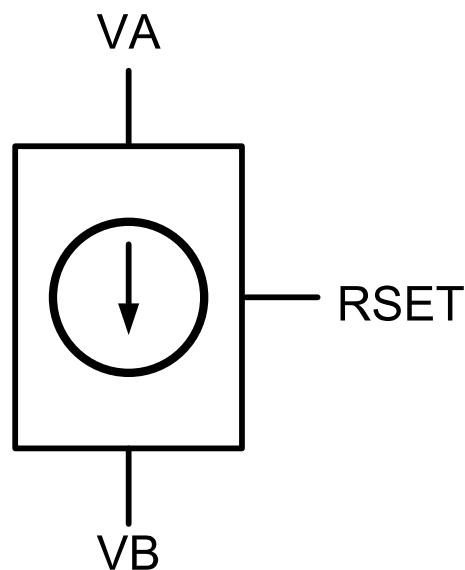
工作电压, $V_{A-B}$	-----	140V
工作电流 (DC), $I_{A-B}$	-----	50mA
封装热阻(接面温度) ( $R_{thJA}$ ), TO-252 (Note1)	-----	57°C/W
封装热阻(接面温度) ( $R_{thJA}$ ), SOT-89 (Note1)	-----	83°C/W
封装热阻(接面温度) ( $R_{thJA}$ ), TO-220/TO-263	-----	35°C/W
最大工作结温( $T_{jmax}$ )	-----	150°C
工作环境温度	-----	-20°C ~ 85°C
适宜存储温度	-----	-65°C ~ 150°C
引线温度(所有Pb free封装, 锡焊, 10秒)	-----	260°C
ESD电压保护, 人体模式	-----	2KV
ESD电压保护, 机器模式	-----	200V

\* Note1: Mounted on 1.6mm FR4 board with 25mm\*25mm copper area

## 建议操作范围

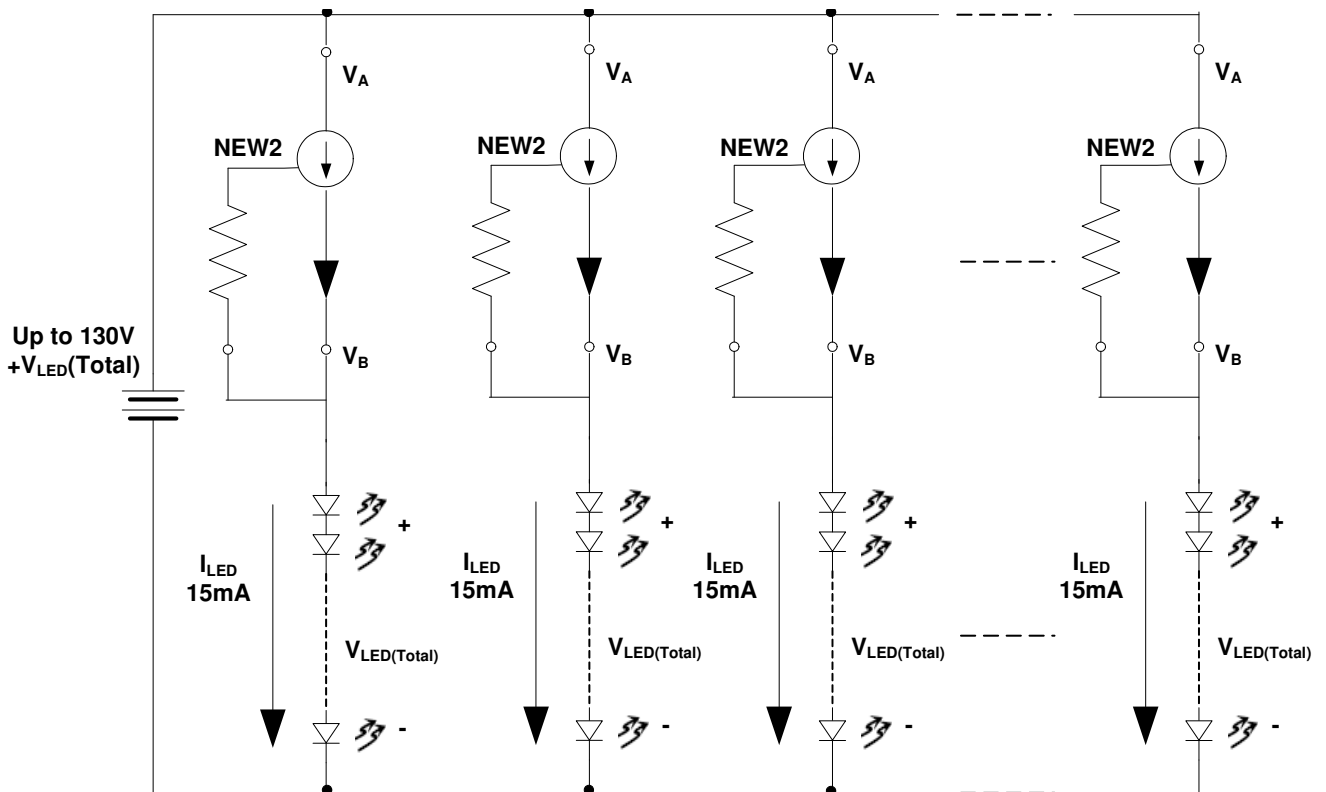
参数	参数值	单位
最大工作电压, $V_{A-B}$	<130	V
平均工作电流 (SOT-89), $I_{AB}$	10	mA
平均工作电流(TO-252), $I_{AB}$	20	mA
平均工作电流(TO-220), $I_{AB}$	25	mA
平均工作电流(TO-263), $I_{AB}$	25	mA

## 方块图

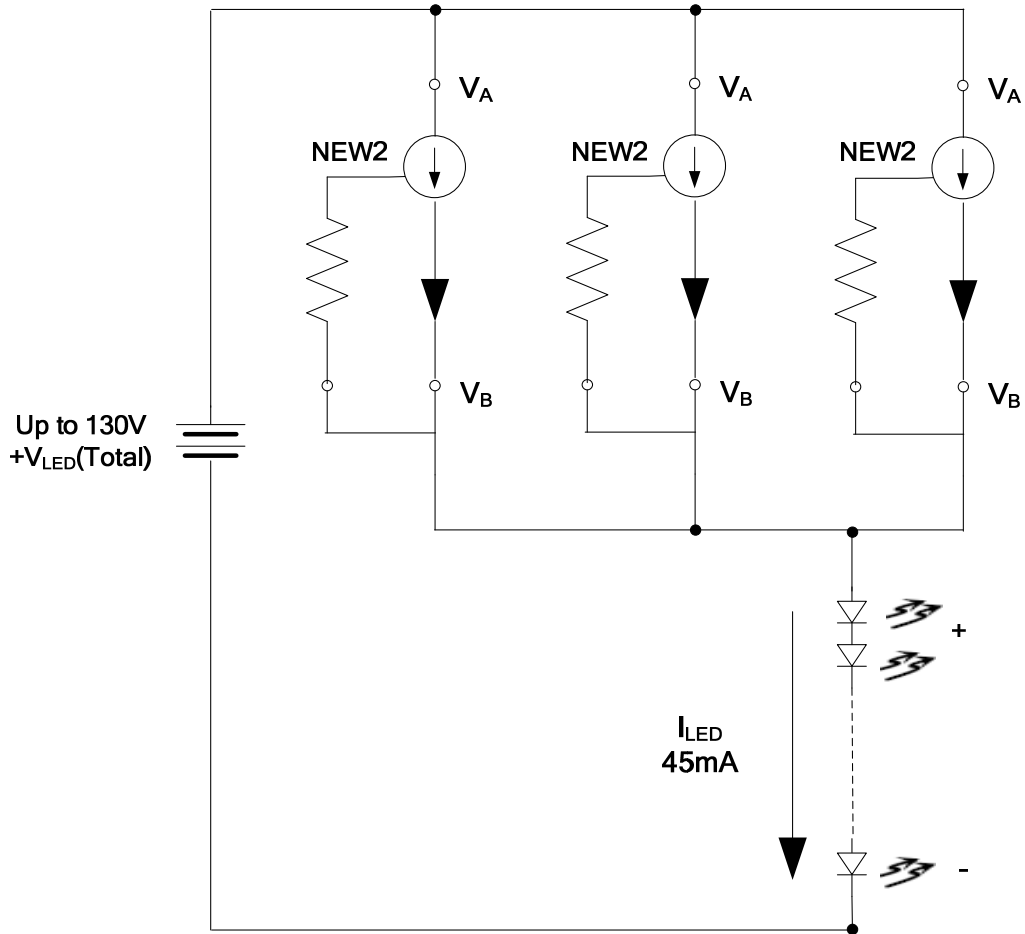


**电器参数** ( $V_{CC} = 15V$  &  $T_A = 25^\circ C$ , 除非特殊说明.)

参数	符号	测试条件	最小	典型	最大	单位
工作电压 Operation Voltage	$V_{A-B}$		7.5		130	V
工作电流 Operation Current	$I_{A-B}$	DC current	5		50	mA
$I_{A-B}$ 温度系数 $I_{A-B}$ Temperature Coefficient	$\Delta I_{A-B}/\Delta T$			0.01		%/ $^\circ C$
基准电压 Reference Voltage	$V_r$		0.85	0.9	0.95	V
最大工作结温 Operation Junction Temperature	$T_j$		-40		140	$^\circ C$

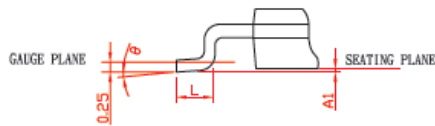
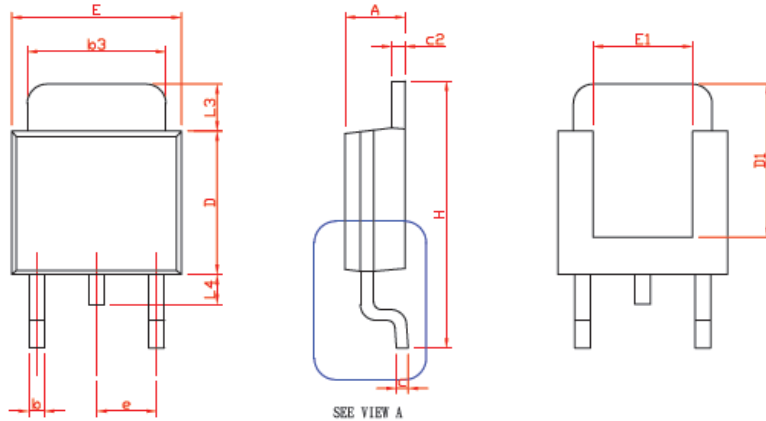
**NEW2 线路— 多个LED灯串情况**


NEW2 线路- 高电流情况



**封装信息**

TO-252

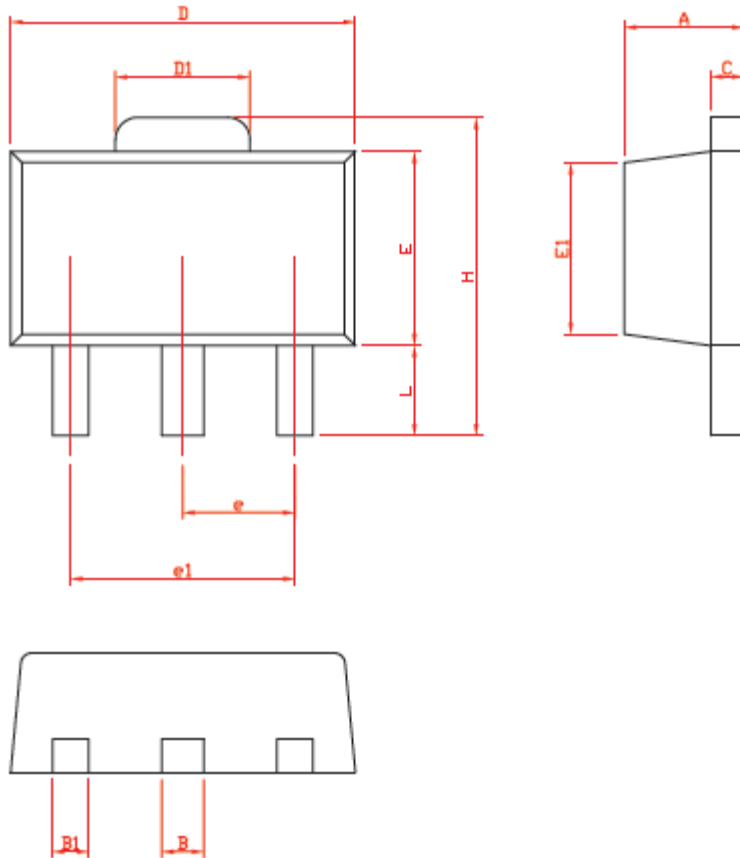


VIEW A

SYMBOL	TO-252-3L			
	MILLIMETERS		INCHES	
	MIN.	MAX.	MIN.	MAX.
A	2.18	2.39	0.086	0.094
A1		0.13		0.005
b	0.50	0.89	0.020	0.035
b3	4.95	5.46	0.195	0.215
c	0.46	0.61	0.018	0.024
c2	0.46	0.89	0.018	0.035
D	5.33	6.22	0.210	0.245
D1	4.57	6.00	0.180	0.236
E	6.35	6.73	0.250	0.265
E1	3.81	6.00	0.150	0.236
e	2.29BSC		0.090 BSC	
H	9.40	10.41	0.370	0.410
L	0.90	1.78	0.035	0.070
L3	0.89	2.03	0.035	0.080
L4		1.02		0.040
⊖	0°	8°	0°	8°

**封装信息**

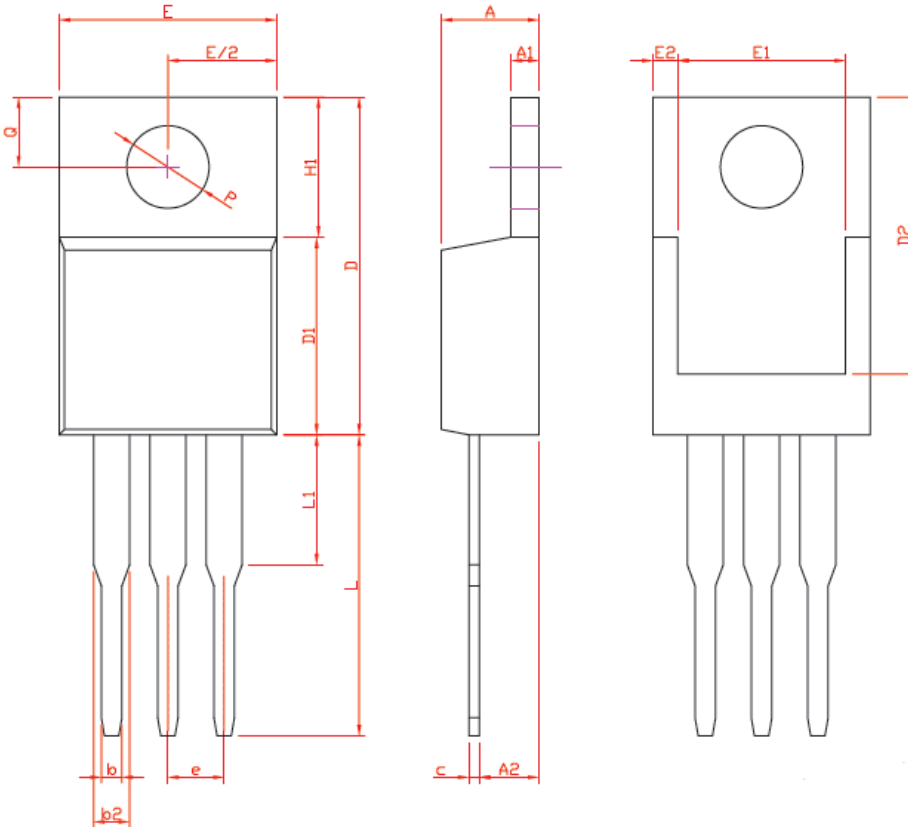
SOT-89



SYMBOL	SOT-89-3L			
	MILLIMETERS		INCHES	
	MIN.	MAX.	MIN.	MAX.
A	1.40	1.60	0.055	0.063
B	0.44	0.56	0.017	0.022
B1	0.36	0.48	0.014	0.019
C	0.35	0.44	0.014	0.017
D	4.40	4.60	0.173	0.181
D1	1.62	1.83	0.064	0.072
E	2.29	2.60	0.090	0.102
E1	2.13	2.29	0.084	0.090
e	1.50 BSC		0.059 BSC	
e1	3.00 BSC		0.118 BSC	
H	3.94	4.25	0.155	0.167
L	0.89	1.20	0.035	0.047

**封装信息**

TO-220

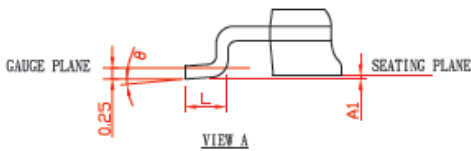
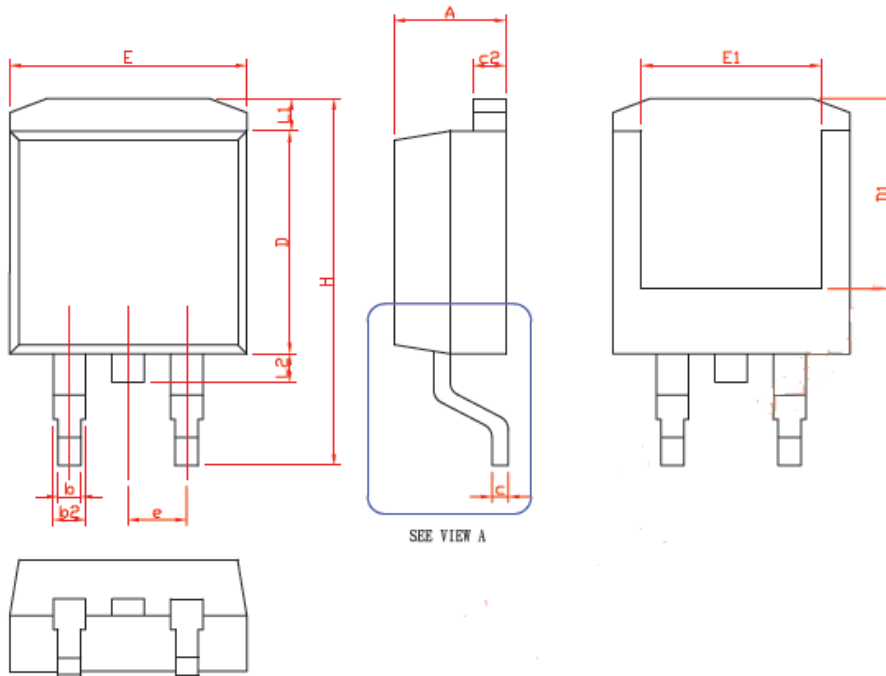


SYMBOL	TO-220-3L			
	MILLIMETERS		INCHES	
	MIN.	MAX.	MIN.	MAX.
A	3.56	4.83	0.140	0.190
A1	0.51	1.40	0.020	0.055
A2	2.03	2.92	0.080	0.115
b	0.38	1.02	0.015	0.040
b2	1.14	1.78	0.045	0.070
c	0.36	0.61	0.014	0.024
D	14.22	16.51	0.560	0.650
D1	8.38	9.02	0.330	0.355
D2	12.19	12.88	0.480	0.507
E	9.65	10.67	0.380	0.420
E1	6.86	8.89	0.270	0.350
E2		0.76		0.030
e	2.54 BSC		0.100 BSC	
H1	5.84	6.86	0.230	0.270
L	12.70	14.73	0.500	0.580
L1		6.35		0.250
P	3.53	4.09	0.139	0.161
Q	2.54	3.43	0.100	0.135



**封装信息**

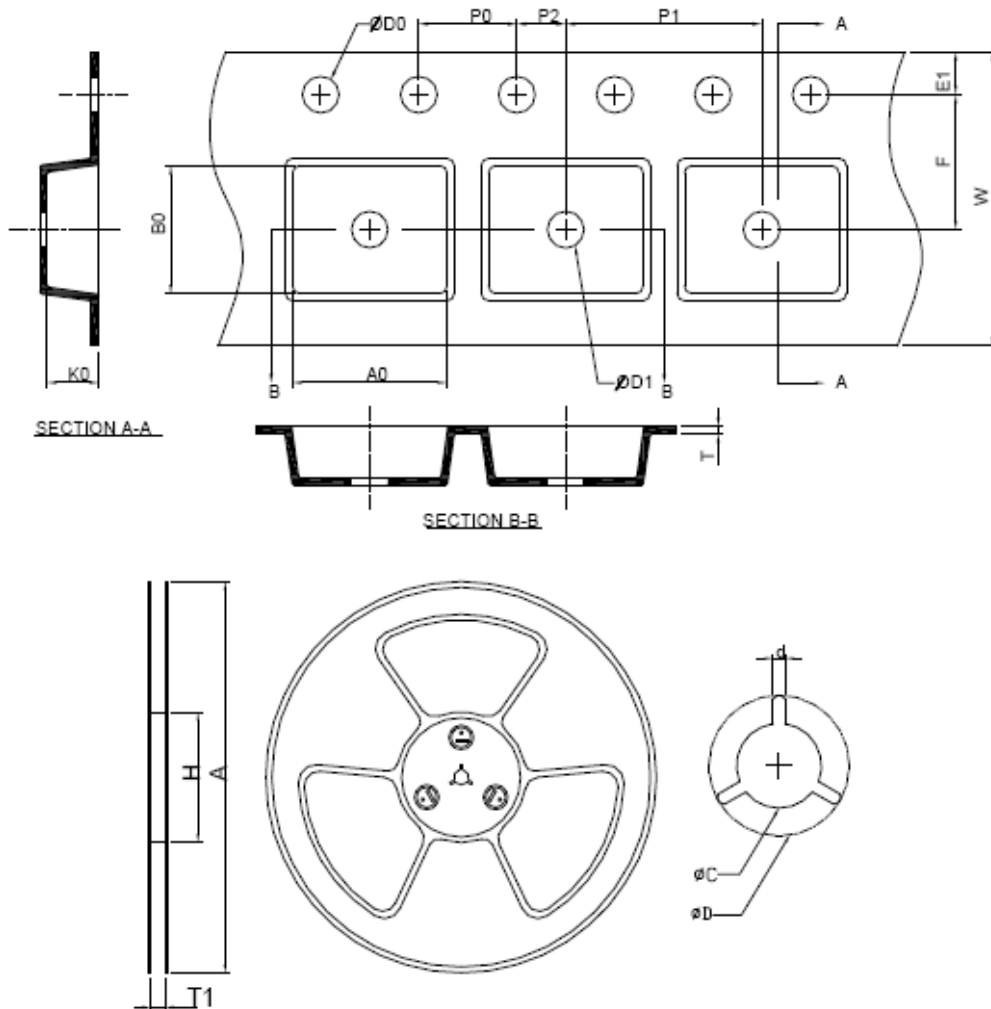
TO-263



SYMBOL	TO-263-3L			
	MILLIMETERS		INCHES	
	MIN.	MAX.	MIN.	MAX.
A	4.06	4.83	0.160	0.190
A1	0.00	0.25	0.000	0.010
b	0.51	0.99	0.020	0.039
b2	1.14	1.78	0.045	0.070
c	0.38	0.74	0.015	0.029
c2	1.14	1.65	0.045	0.065
D	8.38	9.65	0.330	0.380
D1	6.00	9.00	0.236	0.354
E	9.65	11.43	0.380	0.450
E1	6.22	9.00	0.245	0.354
e	2.54 BSC		0.100 BSC	
H	14.61	15.88	0.575	0.625
L	1.78	2.79	0.070	0.110
L1		1.68		0.066
L2		1.78		0.070
$\theta$	0°	8°	0°	8°

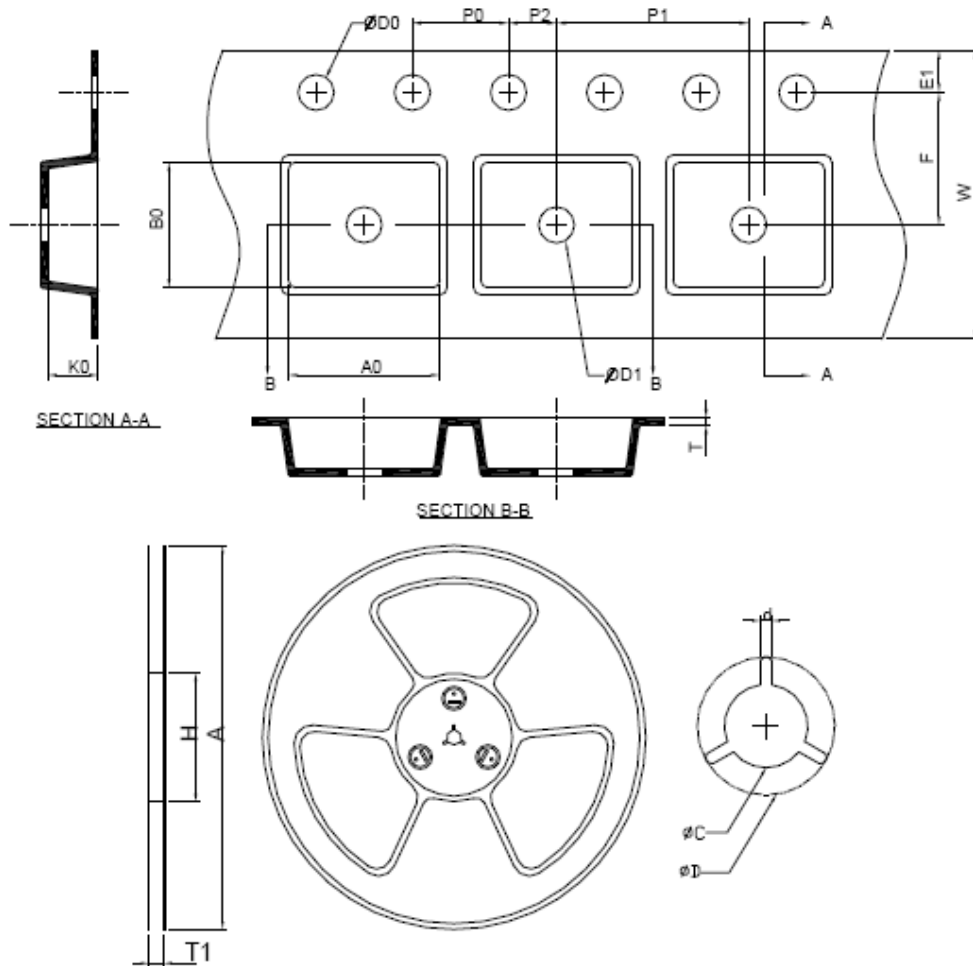
**包装信息**

TO-252



Application	A	H	T1	C	d	D	W	E1	F
TO-252-3	330.0±2.00	50 MIN.	16.4+2.00 -0.00	13.0+0.50 -0.20	1.5 MIN.	20.2 MIN.	16.0±0.30	1.75±0.10	7.50±0.05
	P0	P1	P2	D0	D1	T	A0	B0	K0
	4.0±0.10	8.0±0.10	2.0±0.05	1.5+0.10 -0.00	1.5 MIN.	0.6+0.00 -0.40	6.80±0.20	10.40±0.20	2.50±0.20

Application	Carrier Width	Cover Tape Width	Devices Per Reel
TO-252-3	16	13.3±0.1mm	2500

**包装信息**
**SOT-89**


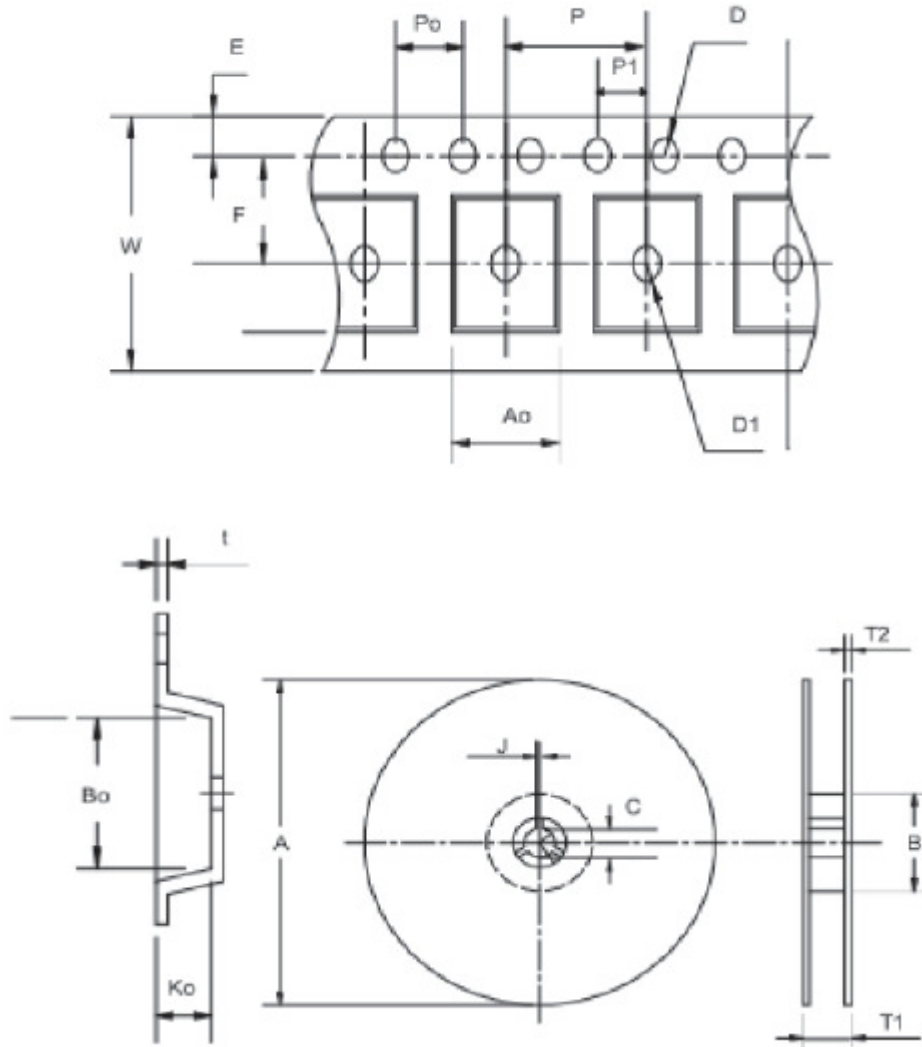
Application	A	H	I1	C	d	D	W	E1	F
SOT-89	178.0±2.00	50 MIN.	12.4+2.00 -0.00	13.0+0.50 -0.20	1.5 MIN.	20.2 MIN.	12.0±0.30	1.75±0.10	5.50±0.05
	P0	P1	P2	D0	D1	I	A0	B0	K0
	4.0±0.10	8.0±0.10	2.0±0.05	1.5+0.10 -0.00	1.5 MIN.	0.6+0.00 -0.40	4.80±0.20	4.50±0.20	1.80±0.20

(mm)

Application	Carrier Width	Cover Tape Width	Devices Per Reel
SOT-89	12	-	1000

**包装信息**

TO-263

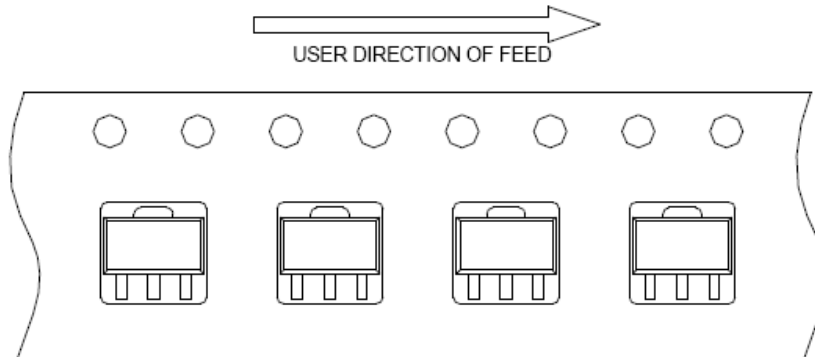


Application	W	E	F	PO	AO	P	P1	BO	KO
TO-263-3	24±0.3	1.75±0.1	11.5±0.1	4±1	10.8±0.2	8±0.1	16±0.1	3.3+0.2	1.4+0.2
	A	B	T1						
	330±2	60min	24.4+2/-0						

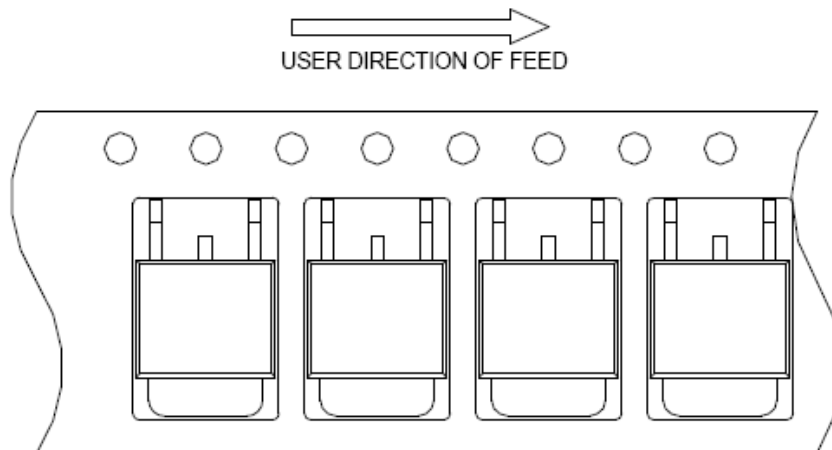
Application	Carrier Width	Cover Tape Width	Devices Per Reel
TO-263-3	24	21.3±0.1mm	800

## 包装信息

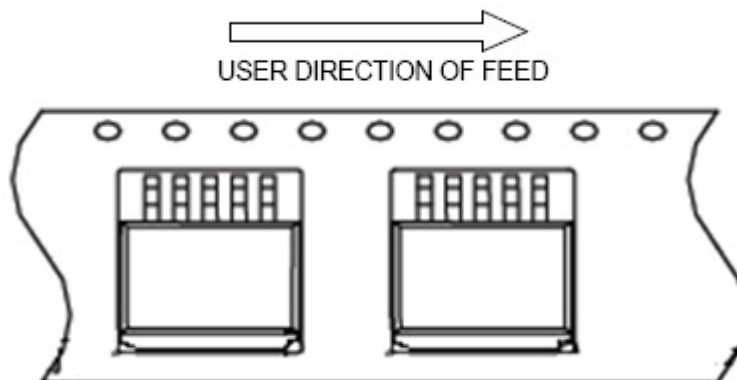
SOT-89



TO-252



TO-263 Series



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