

# MS101206-MISC

*TO 220 Leadbend Options*



Literature Number: SNOA073C

## TO 220 Leadbend Options

National Semiconductor offers several types of enhanced packages. One with high popularity is the TO-220 package designed with exposed heat sink for efficient heat dissipation. Examples of some products used in this package are voltage regulators, comparators, and high current switches. The TO-220 package is offered in lead counts from 3 to 15. To provide flexibility on system board applications, several leadbend options are offered as shown.

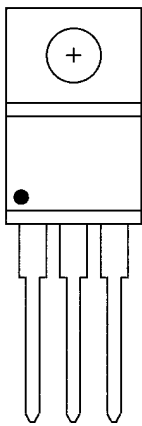
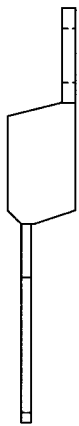
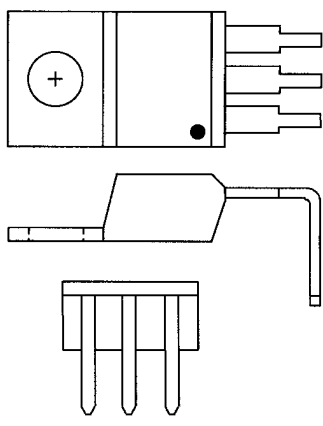
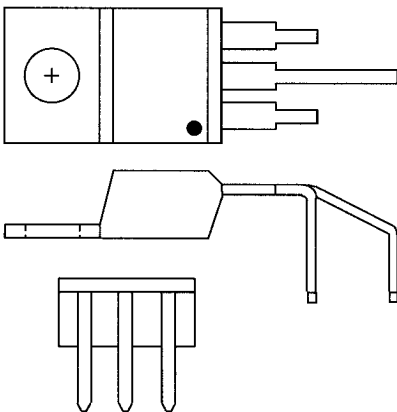
For any TO-220 package, please check with your sales representative for availability of requested leadbend options.

**Note:**

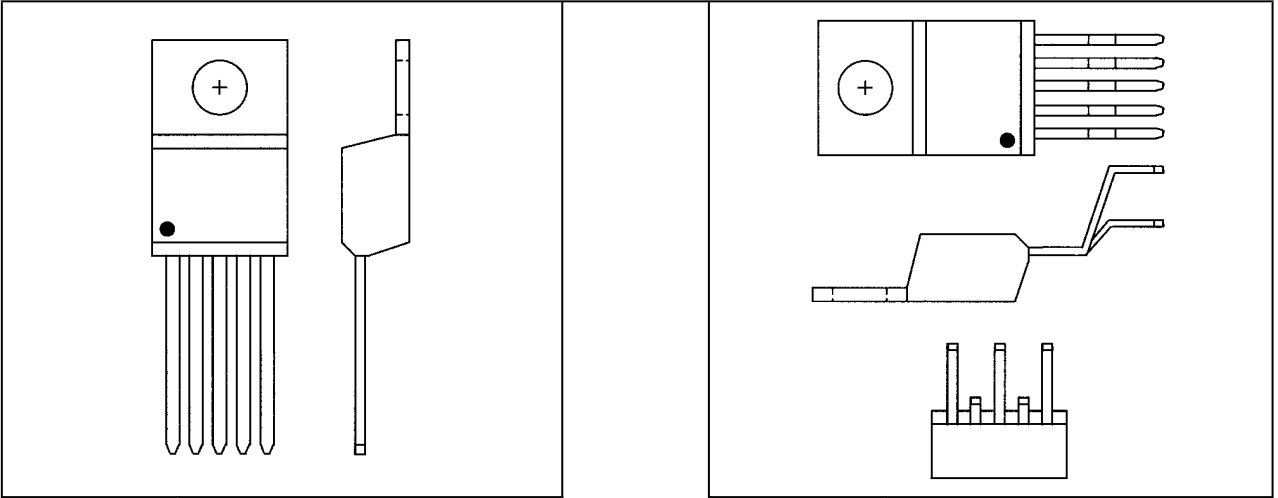
- Surface Mount Leadform available as TO-263 package.

- National Semiconductor's leadbend process requires an accurate set up and tight tooling controls. Third party leadbends are not recommended nor guaranteed, as an incorrect set up can potentially damage the device and render the device non-functional. For special lead forming or bending requirements please contact your National sales or marketing person.
- The maximum recommended torque force to mount a TO-220 package to a heatsink or PCB board is 9 inch-pounds. Use of rivet or exceeding torque force can potentially damage the device and render it non-functional and is not recommended nor guaranteed.

### 3 Lead Leadbend Options

			
	<b>Drawing No.</b>		
STD	MKT-T03B		
			
		<b>Flow No.</b>	<b>Drawing No.</b>
		LB06	MKT-T03A
			
	<b>Flow No.</b>	<b>Drawing No.</b>	
	LB07	MKT-T03D	
Ordering Example: LM2940T-5.0 LB07			

### 5 Lead Standard Leadbend Options

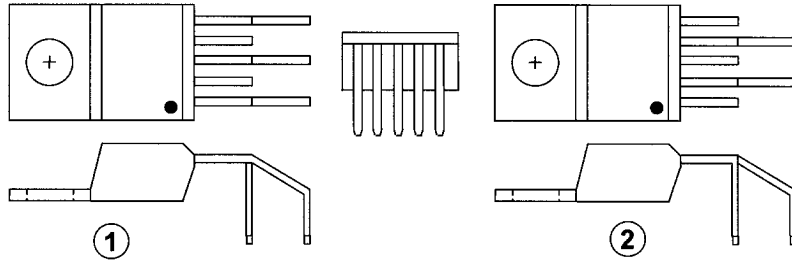


	<b>Drawing No.</b>
STD	MKT-T05A

<b>Flow No.</b>	<b>Drawing No.</b>
STD	MKT-T05D

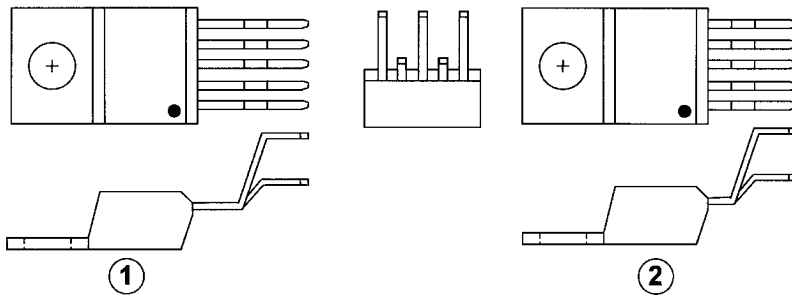
Ordering Example: LM2575T

## 5 Lead Non-Standard Leadbend Options



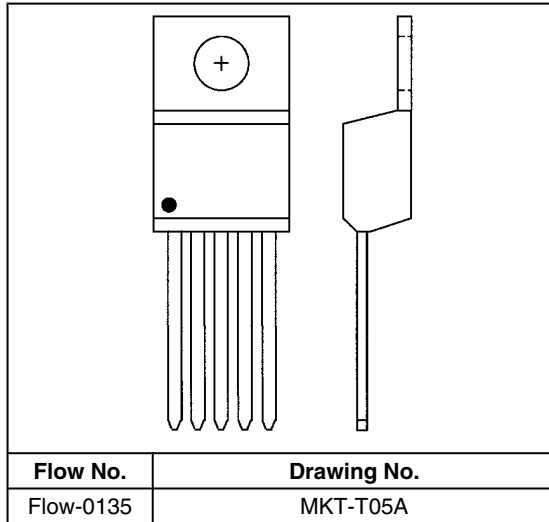
Flow No.	Drawing No.	
LB02	MKT-TA05B	1
LB05	MKT-T05E	2

Ordering Example: LM1875T LB02

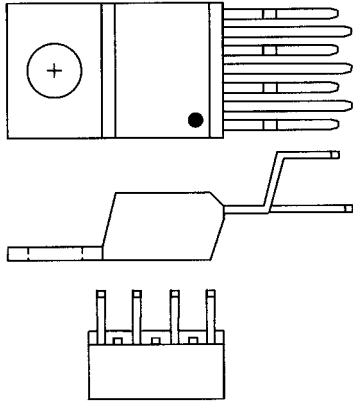


Flow No.	Drawing No.	
LB03	MKT-T05D	1
LB04	MKT-T05F	2

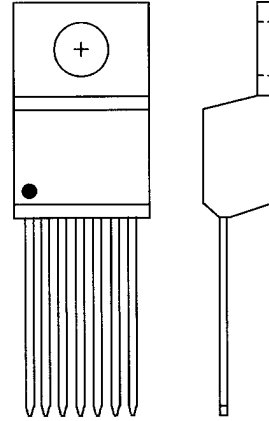
Ordering Example: LM2941T LB04



### 7 Lead Leadbend Options

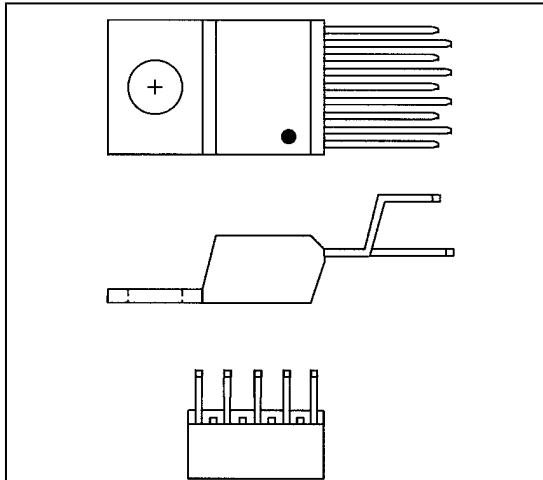


	<b>Drawing No.</b>
STD	MKT-TA07B
Ordering Example: LM2676T-ADJ	



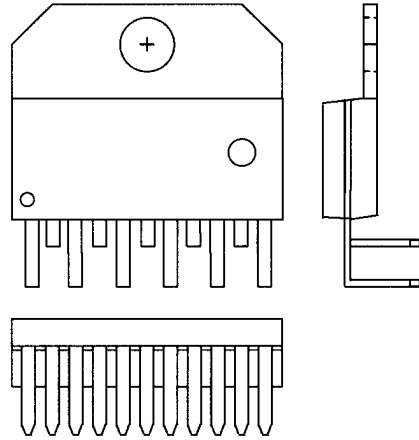
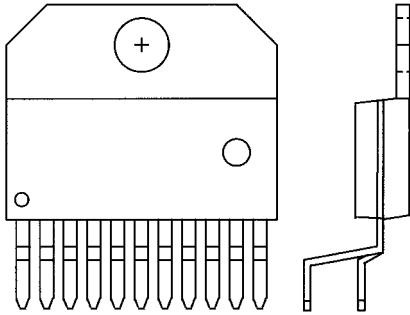
<b>Flow No.</b>	<b>Drawing No.</b>
Flow-0135	MKT-TA07A
Ordering Example: LM2676T-ADJ Flow-0135	

### 9 Lead Leadbend Options



	<b>Drawing No.</b>
STD	MKT-TA9A

## 11 Lead Non-Isolated Leadbend Options

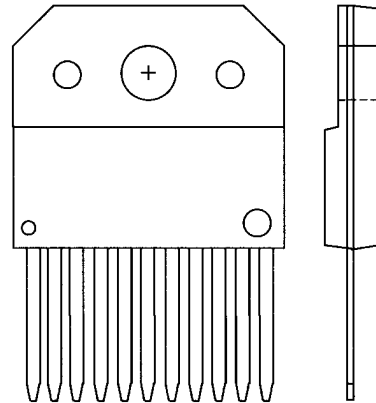
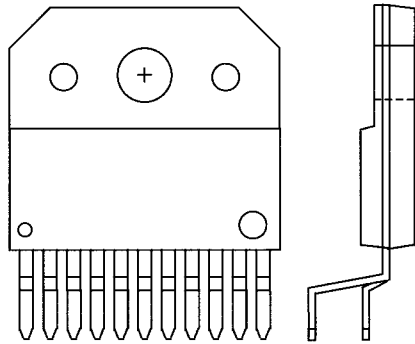


	<b>Drawing No.</b>
STD	MKT-TA11B

<b>Flow No.</b>	<b>Drawing No.</b>
LB14	MKT-TA11E

Ordering Example: LM2876T LB14

## 11 Lead Isolated Leadbend Options

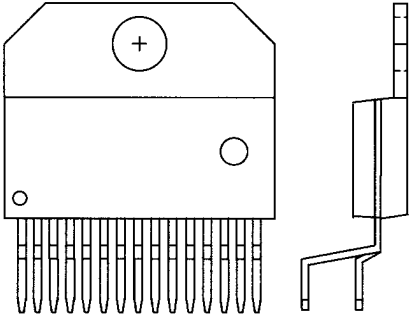
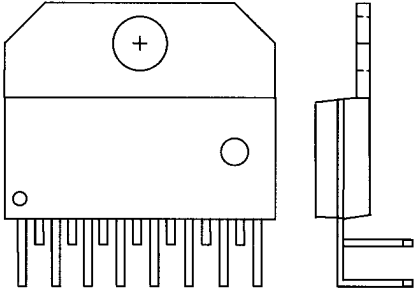


	<b>Drawing No.</b>
STD	MKT-TF11B

<b>Flow No.</b>	<b>Drawing No.</b>
LB11	MKT-TF11D

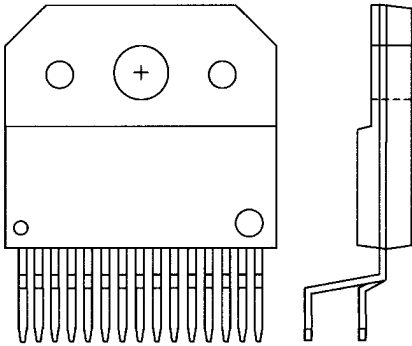
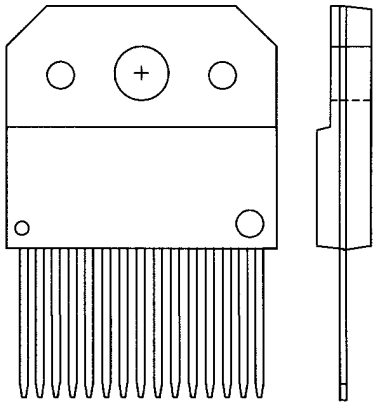
Ordering Example: LM4700TF LB11

### 15 Lead Non-Isolated Leadbend Options

			
	<b>Drawing No.</b>	<b>Flow No.</b>	<b>Drawing No.</b>
STD	MKT-TA15A	LB10	MKT-TA15D

Ordering Example: LM1876T LB10

### 15 Lead Isolated Leadbend Options

			
	<b>Drawing No.</b>	<b>Flow No.</b>	<b>Drawing No.</b>
STD	MKT-TF15B	LB13	MKT-TF15A

Ordering Example: LM1876TF LB13

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