



## NSTA06: Small Signal Driver

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### Parametric Table

Orderable Part	I <sub>C</sub> Max (A)	V <sub>(BR)CBO</sub> Min (V)	h <sub>FE</sub> Min	h <sub>FE</sub> Max	f <sub>T</sub> Min (MHZ)	Polarity	Package	Packing
MMBTA06LT1	0.5	80	100 *	-	100 *	NPN	SOT23, (TO236AB)	Tape and Reel *
MMBTA06LT3	0.5	80	100 *	-	100 *	NPN	SOT23, (TO236AB)	Tape and Reel *
MMBTA06WT1	0.5	80	100 *	-	100 *	NPN	SC70, (SOT323)	Tape and Reel *
MPSA06	0.5	80	100 *	-	100 *	NPN	TO92	Bulk *
MPSA06RL	0.5	80	100 *	-	100 *	NPN	TO92	Tape and Reel *
MPSA06RL1	0.5	80	100 *	-	100 *	NPN	TO92	Tape and Reel *
MPSA06RLRA	0.5	80	100 *	-	100 *	NPN	TO92	Tape and Reel *
MPSA06RLRM	0.5	80	100 *	-	100 *	NPN	TO92	Tape and Ammunition Box *
MPSA06RLRP	0.5	80	100 *	-	100 *	NPN	TO92	Tape and Ammunition Box *

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### Orderable Devices

Product	Status	Package			MSL*	Container		Budgetary Price	Action
		Type	Pins	Case Outline		Type	Qty.		
MMBTA06LT3G	Active	SOT-23 (TO-236)	3	<a href="#">318-08</a>	1	Tape and Reel	10000		
MPSA06RLRPG	Active	TO-92 (TO-226) 5.33mm Body Height	3	<a href="#">29-11</a>		Tape and Ammunition Box	2000	<a href="#">Availability/ Buy</a>	
MMBTA06LT3	Active	SOT-23 (TO-236)	3	<a href="#">318-08</a>	1	Tape and Reel	10000	<a href="#">Order Samples</a> <a href="#">Availability/ Buy</a>	
MPSA06G	Active	TO-92 (TO-226) 5.33mm Body Height	3	<a href="#">29-11</a>		Bulk	5000	<a href="#">Availability/ Buy</a>	
MMBTA06WT1	Active	SC-70 (SOT-323)	3	<a href="#">419-04</a>	1	Tape and Reel	3000	<a href="#">Order Samples</a>	
MPSA06RLRP	Active	TO-92 (TO-226) 5.33mm Body Height	3	<a href="#">29-11</a>		Tape and Ammunition Box	2000	<a href="#">Order Samples</a> <a href="#">Availability/ Buy</a>	
MPSA06RLRMG	Active	TO-92 (TO-226) 5.33mm Body Height	3	<a href="#">29-11</a>		Tape and Ammunition Box	2000		
SMMBTA06LT3G	Active	SOT-23 (TO-236)	3	<a href="#">318-08</a>	1	Tape and Reel	10000		
MPSA06RL	Active	TO-92 (TO-226) 5.33mm Body Height	3	<a href="#">29-11</a>		Tape and Reel	2000	<a href="#">Order Samples</a>	
MPSA06RL1G	Active	TO-92 (TO-226) 5.33mm Body Height	3	<a href="#">29-11</a>		Tape and Reel	2000		
MPSA06	Active	TO-92 (TO-226) 5.33mm Body Height	3	<a href="#">29-11</a>		Bulk	5000	<a href="#">Order Samples</a> <a href="#">Availability/ Buy</a>	
MPSA06RL1	Active	TO-92 (TO-226) 5.33mm Body Height	3	<a href="#">29-11</a>		Tape and Reel	2000	<a href="#">Order Samples</a>	

 MPSA06RLG	Active	TO-92 (TO-226) 5.33mm Body Height	3	<a href="#">29-11</a>		Tape and Reel	2000		
 MMBTA06LT1G	Active	SOT-23 (TO-236)	3	<a href="#">318-08</a>	1	Tape and Reel	3000		<a href="#">Availability/ Buy</a>
MPSA06RLRM	Active	TO-92 (TO-226) 5.33mm Body Height	3	<a href="#">29-11</a>		Tape and Ammunition Box	2000		<a href="#">Order Samples Availability/ Buy</a>
 MPSA06RLRAG	Active	TO-92 (TO-226) 5.33mm Body Height	3	<a href="#">29-11</a>		Tape and Reel	2000		<a href="#">Availability/ Buy</a>
 MMBTA06WT1G	Active	SC-70 (SOT-323)	3	<a href="#">419-04</a>	1	Tape and Reel	3000		
MMBTA06LT1	Active	SOT-23 (TO-236)	3	<a href="#">318-08</a>	1	Tape and Reel	3000		<a href="#">Order Samples Availability/ Buy</a>
MPSA06RLRA	Active	TO-92 (TO-226) 5.33mm Body Height	3	<a href="#">29-11</a>		Tape and Reel	2000		<a href="#">Order Samples Availability/ Buy</a>



Symbol denotes 2nd Level Interconnect lead (Pb) free content. 2nd Level Interconnect refers to leads, balls or other electrical contact mechanisms of a part

Moisture Sensitivity level (MSL) for surface mount devices (lead free measured at 260°C reflow, non lead free at 235°C reflow)

### Features

- Simplifies Circuit Design
- Low  $r_{DS(on)}$  Provides Higher Efficiency and Extends Battery Life
- Reduces Board Space
- Miniature SC-70/SOT-323 Surface Mount Package Saves Board Space
- Reduces Component Count
- Pb-Free Packages are Available
- The SOT-23 package can be soldered using wave or reflow. The modified gull-winged leads absorb thermal stress during soldering eliminating the possibility of damage to the die.
- Available in 8 mm embossed tape and reel. Use the Device Number to order the 7 inch/3000 unit reel. Replace "T1" with "T3" in the Device Number to order the 13 inch/10,000 unit reel.

NPN Silicon

### Data Sheet

Type	Document Title	Document ID/Size	Rev
Data Sheet	Driver Transistor NPN	<a href="#">MMBTA05LT1/D - 62.0 KB</a>	3
Data Sheet	Amplifier Transistor NPN	<a href="#">MPSA05/D - 111.0 KB</a>	1

### Application Notes

Type	Document Title	Document ID/Size	Rev
Application Notes	Providing a POTS Phone In and ISDN or Similar Environment	<a href="#">AN1603/D - 380.0 KB</a>	0
Application Notes	Design Considerations for a Low Voltage N-Channel H-Bridge Motor Drive	<a href="#">AN1319/D - 126.0 KB</a>	0
Application Notes	High Power Audio Amplifiers with Short Circuit Protection	<a href="#">AN485/D - 394.0 KB</a>	0

### Models

Type	Document Title	Document ID/Size	Rev
Models	lib model for MMBTA06WT1	<a href="#">MMBTA06WT1 - 0.0 KB</a>	0
Models	SIN Model for MPSA06	<a href="#">MPSA06.SIN - 1.0 KB</a>	0
Models	LIB Model for MPSA06	<a href="#">MPSA06.LIB - 0.0 KB</a>	0
Models	sp3 model for MMBTA06WT1	<a href="#">MMBTA06WT1.SP3 - 0.0 KB</a>	0
Models	sp2 model for MMBTA06WT1	<a href="#">MMBTA06WT1.SP2 - 0.0 KB</a>	0
Models	SP3 Model for MPSA06	<a href="#">MPSA06.SP3 - 0.0 KB</a>	0
Models	sin model for MMBTA06WT1	<a href="#">MMBTA06WT1.SIN - 1.0 KB</a>	0
Models	SP2 Model for MPSA06	<a href="#">MPSA06.SP2 - 0.0 KB</a>	0

## Reference Manuals

Type	Document Title	Document ID/Size	Rev
Reference Manuals	Tape & Reel and Packaging Specifications for Small-Signal Transistors, FETs and Diodes	<a href="#">DL126TRS/D - 96.0 KB</a>	2

## Catalog

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