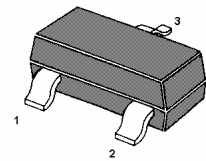


MMBTRA221SS...MMBTRA226SS

PNP Silicon Epitaxial Planar Transistor

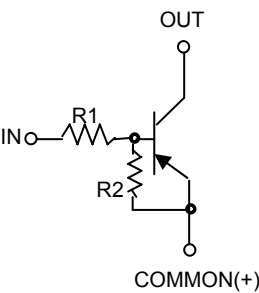
for high current switching, interface circuit and driver circuit application.

- With Built-in Bias Resistor
- Simplify Circuit Design
- Reduce a Quantity of Parts and Manufacturing Process
- High Output Current: -300mA



1. In 2. Common 3. Out

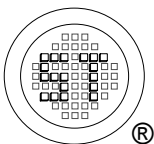
SOT-23 Plastic Package



TYPE NO.	R1(KΩ)	R2(KΩ)
MMBTRA221SS	1	1
MMBTRA222SS	2.2	2.2
MMBTRA223SS	4.7	4.7
MMBTRA224S	10	10
MMBTRA225SS	1	10
MMBTRA226SS	2.2	10

Absolute Maximum Ratings (T_a = 25 °C)

		Symbol	Rating	Unit
Output Voltage	MMBTRA221SS~226SS	V _O	-50	V
Input Voltage	MMBTRA221SS	V _I	-10, 10	V
	MMBTRA222SS		-12, 10	
	MMBTRA223SS		-20, 10	
	MMBTRA224SS		-30, 10	
	MMBTRA225SS		-10, 5	
	MMBTRA226SS		-12, 6	
Output Current	MMBTRA221SS~226SS	I _O	-300	mA
Power Dissipation		P _{tot}	200	mW
Junction Temperature		T _J	150	°C
Storage Temperature Range		T _S	-55~+150	°C



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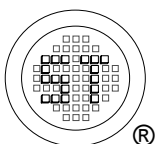
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MMBTRA221SS...MMBTRA226SS

Characteristics at $T_{amb}=25\text{ }^{\circ}\text{C}$

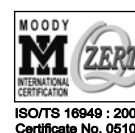
		Symbol	Min.	TYP	Max.	Unit
Output Cut-off Current at $-V_O=30\text{V}$	MMBTRA221SS~226SS	$-I_{O(OFF)}$	-	-	10	μA
DC Current Gain at $-V_O=5\text{V}$, $-I_O=50\text{mA}$	MMBTRA221SS	G_I	33	-	-	
	MMBTRA222SS		39	-	-	
	MMBTRA223SS		47	-	-	
	MMBTRA224SS		56	-	-	
	MMBTRA225SS		56	-	-	
	MMBTRA226SS		56	-	-	
Output Voltage at $-I_O=10\text{mA}$, $-I_I=0.5\text{mA}$	MMBTRA221SS~226SS	$-V_{O(ON)}$	-	-	0.6	V
Input Voltage (ON) at $-V_O=0.3\text{V}$, $-I_O=20\text{mA}$	MMBTRA221SS	$-V_{I(ON)}$	-	-	3	V
	MMBTRA222SS		-	-	3	
	MMBTRA223SS		-	-	3	
	MMBTRA224SS		-	-	3	
	MMBTRA225SS		-	-	3	
	MMBTRA226SS		-	-	3	
Input Voltage (OFF) at $-V_O=5\text{V}$, $-I_O=0.1\text{mA}$	MMBTRA221SS~224SS	$-V_{I(OFF)}$	0.5	-	-	V
	MMBTRA225SS~226SS		0.3	-	-	
Transition Frequency at $-V_O=10\text{V}$, $-I_O=5\text{mA}$,	MMBTRA221SS~226SS	$f_T^{1)}$	-	200	-	MHz
Input Current at $-V_I=5\text{V}$	MMBTRA221SS	$-I_I$	-	-	7.2	mA
	MMBTRA222SS		-	-	3.8	
	MMBTRA223SS		-	-	1.8	
	MMBTRA224SS		-	-	0.88	
	MMBTRA225SS		-	-	7.2	
	MMBTRA226SS		-	-	3.6	

¹⁾ Characteristic of Transistor Only



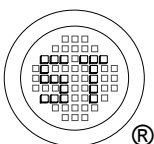
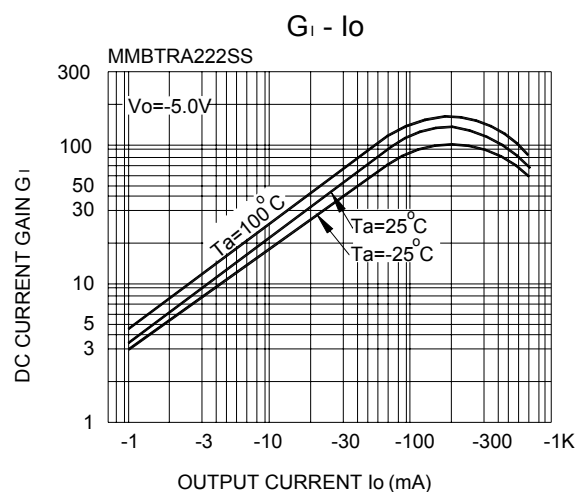
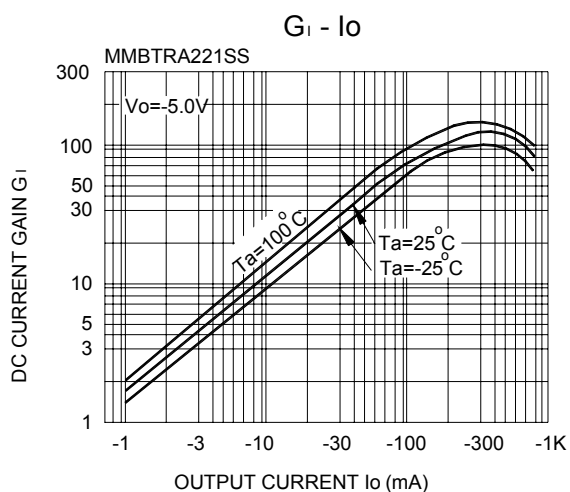
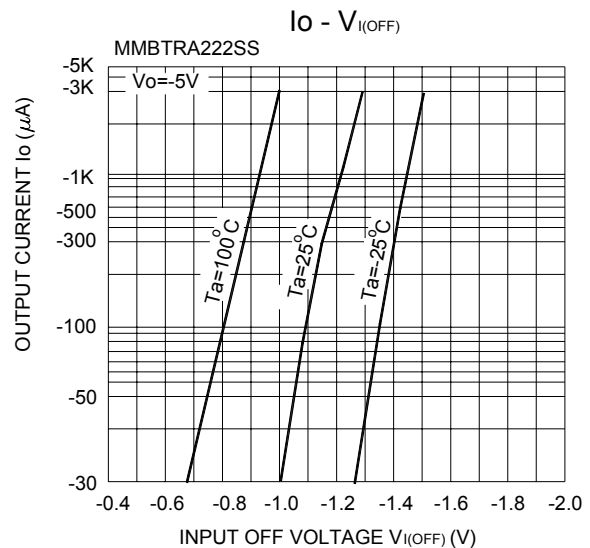
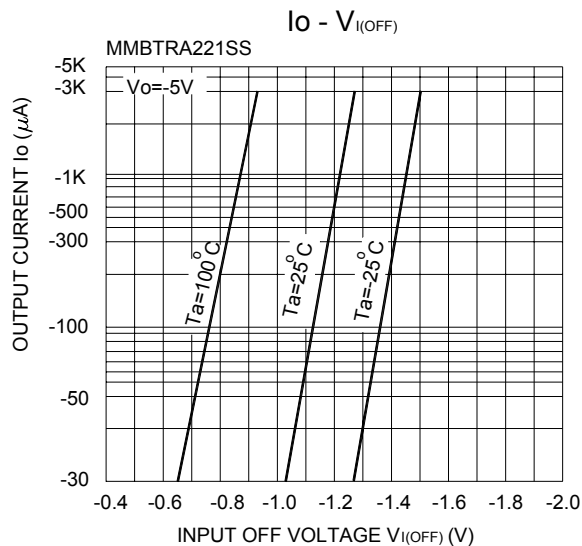
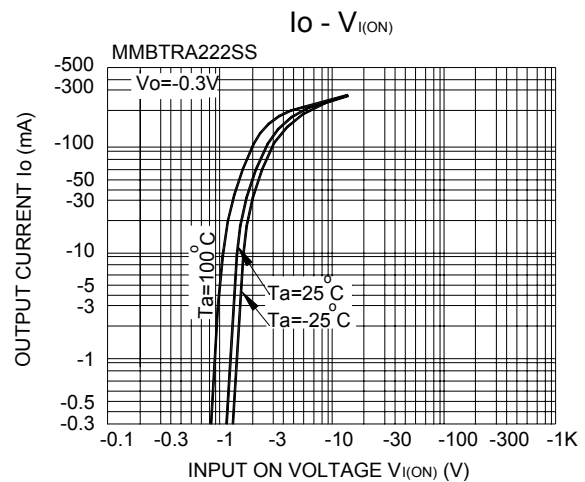
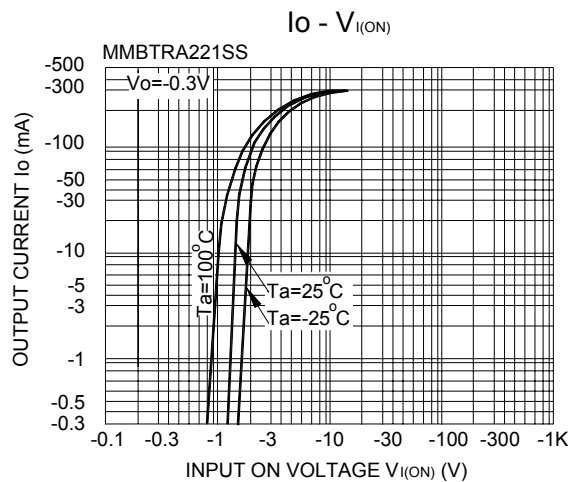
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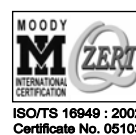
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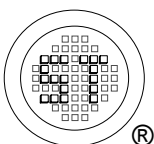
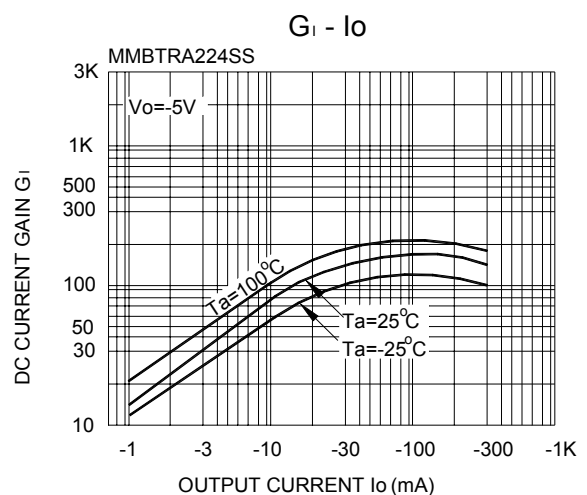
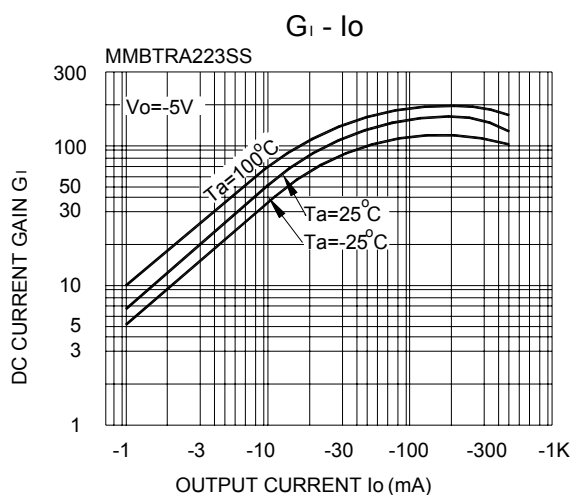
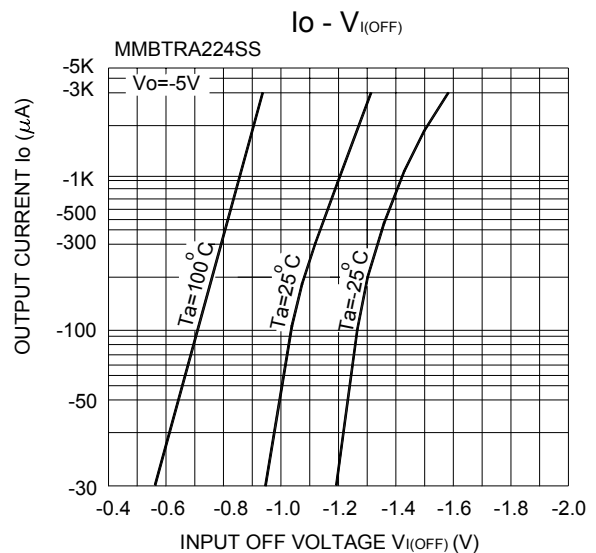
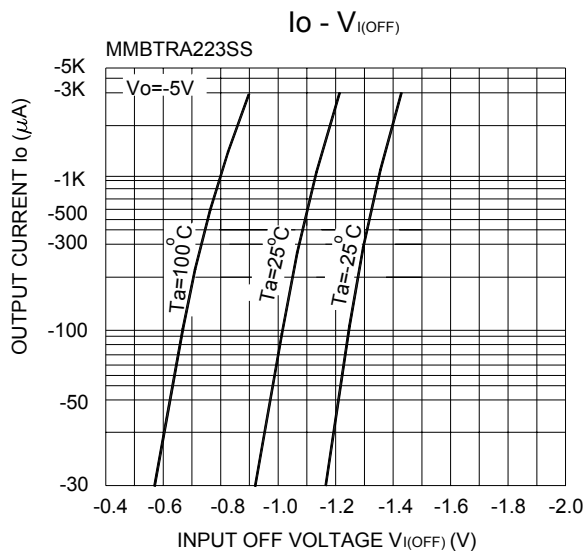
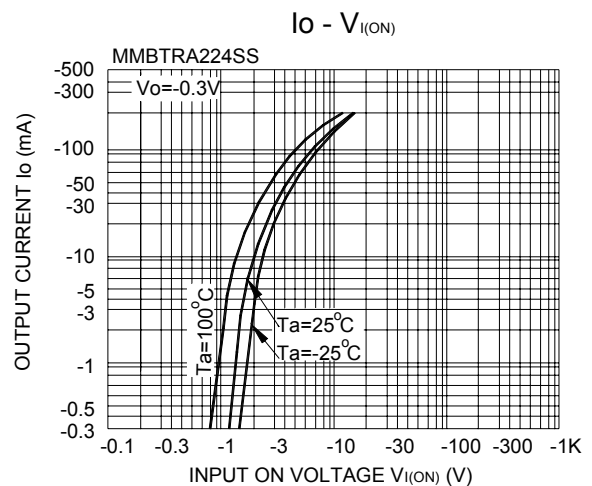
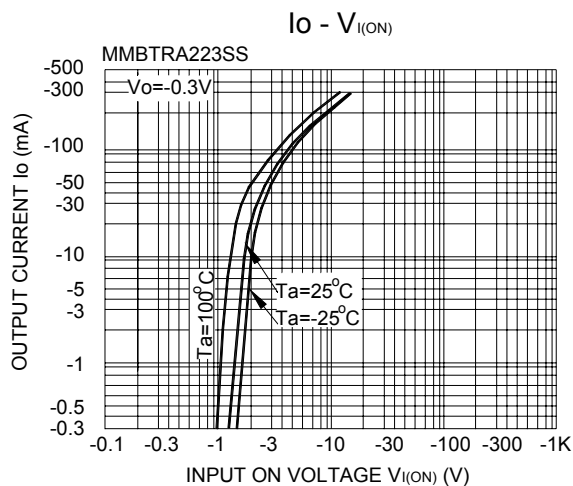
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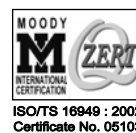
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MMBTRA221SS...MMBTRA226SS



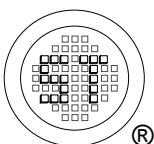
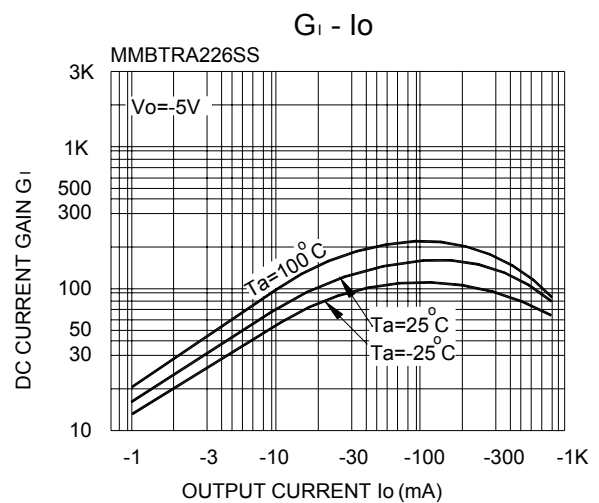
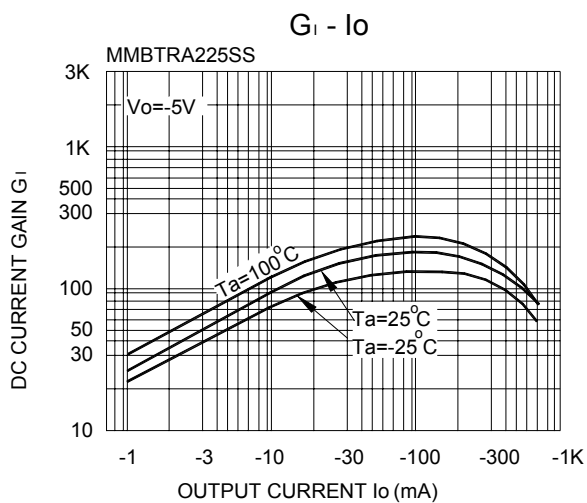
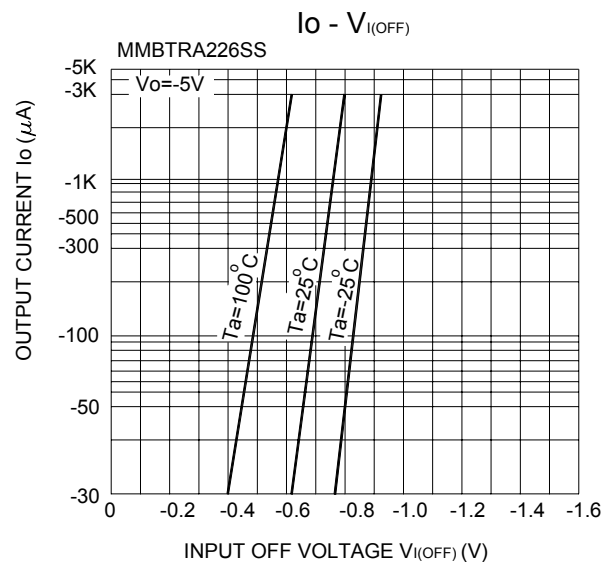
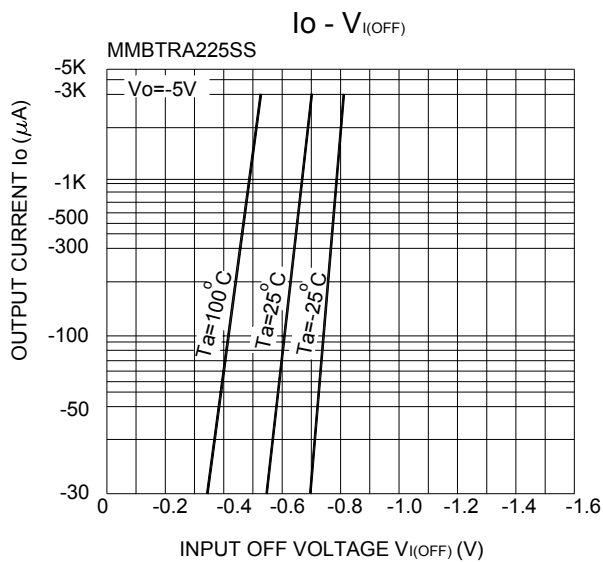
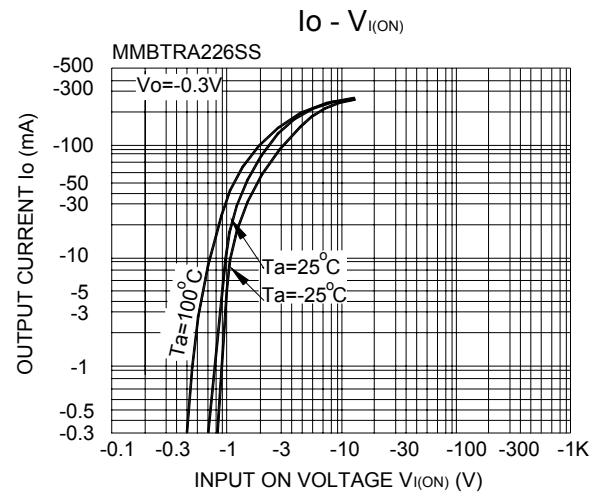
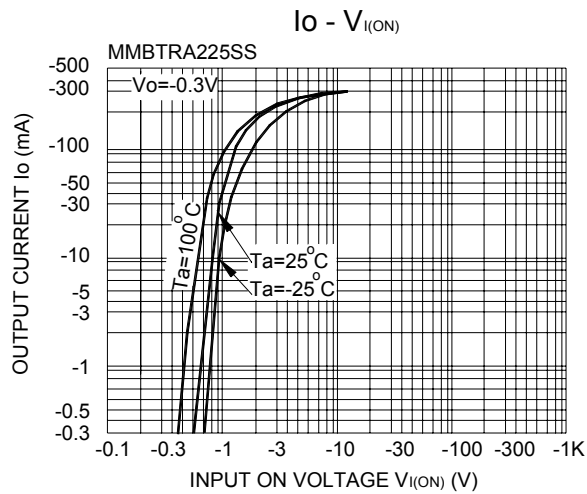
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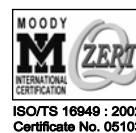
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