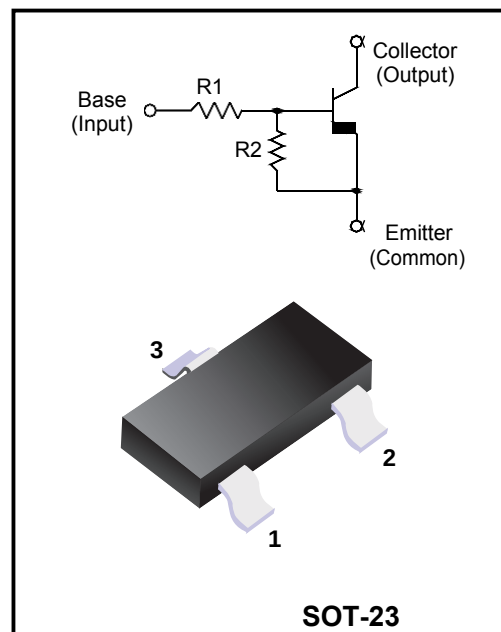


PNP Silicon Epitaxial Planar Transistor

for switching and interface circuit and
drive circuit applications



Type	Marking	R1 (KΩ)	R2 (KΩ)
KRA101S	101	4.7	4.7
KRA102S	102	10	10
KRA103S	103	22	22
KRA104S	104	47	47
KRA105S	105	2.2	47
KRA106S	106	4.7	47

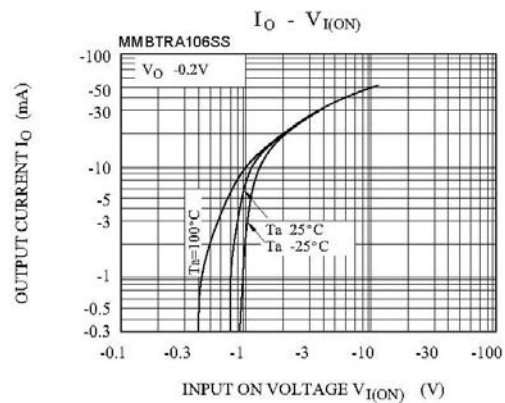
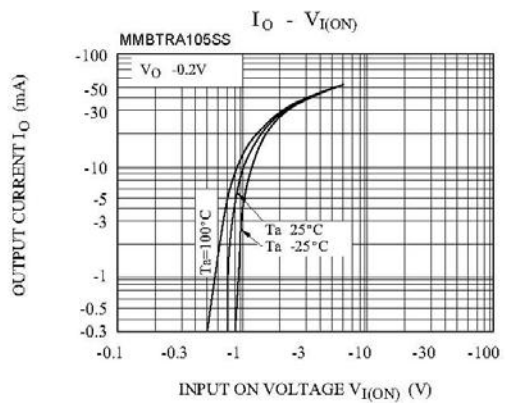
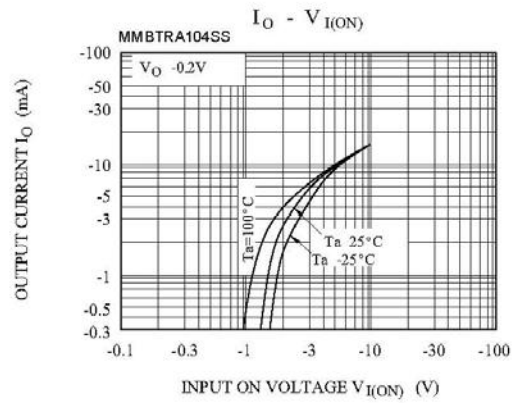
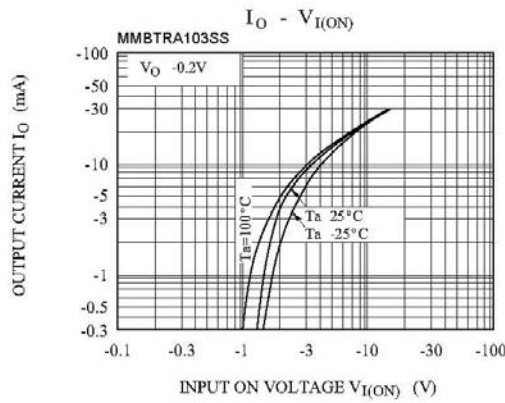
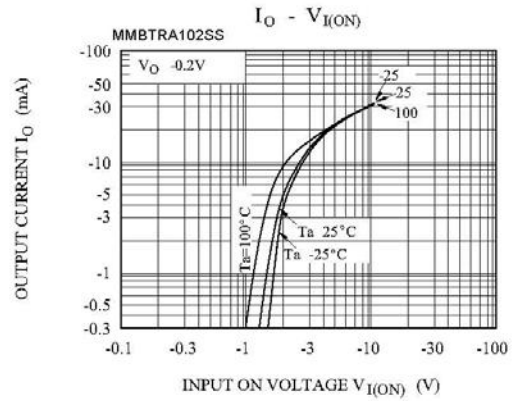
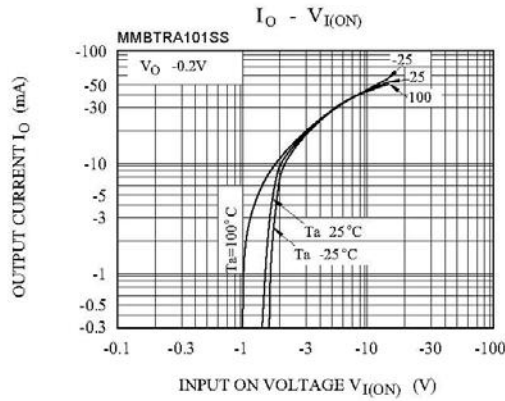
Absolute Maximum Ratings (Ta = 25 °C)

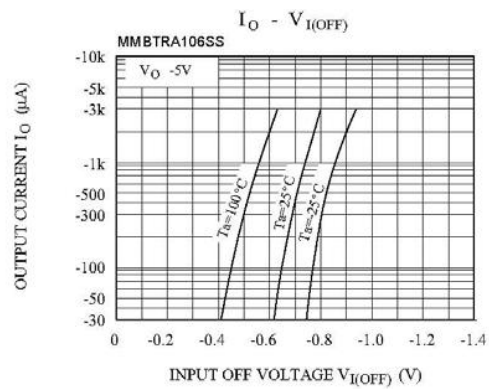
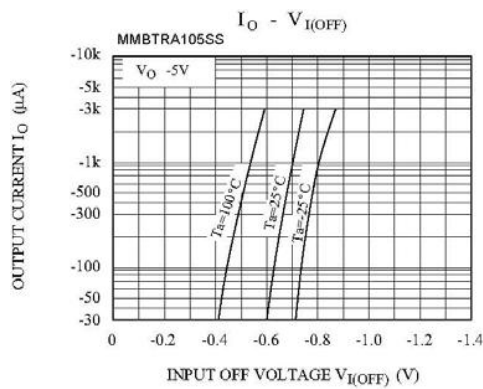
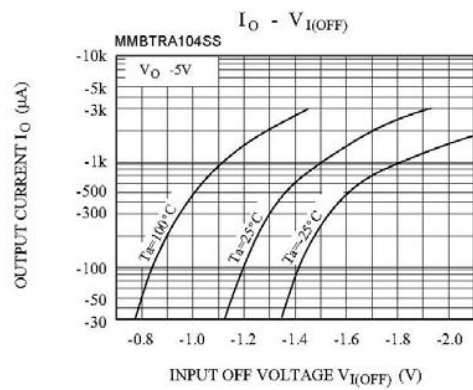
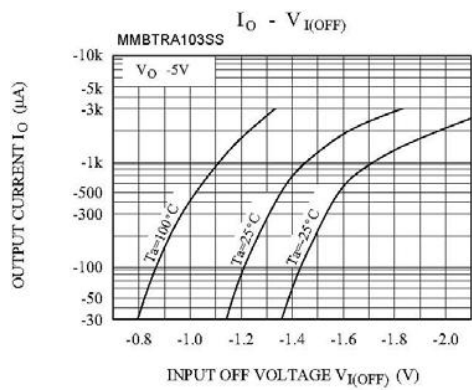
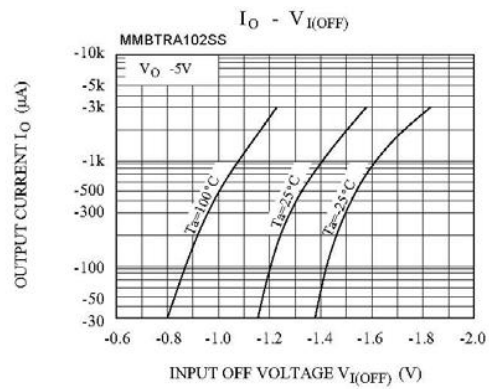
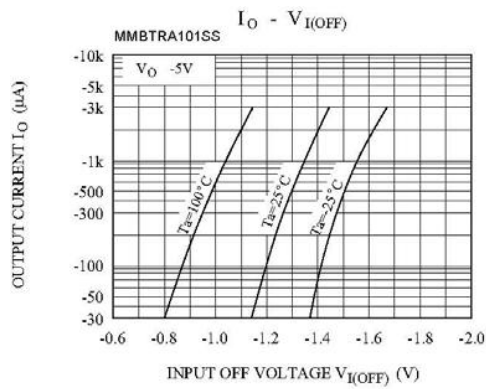
Parameter		Symbol	Value	Unit
Output Voltage		$-V_o$	50	V
Input Voltage	KRA101S	$-V_i$	20, -10	V
	KRA102S		30, -10	
	KRA103S		40, -10	
	KRA104S		40, -10	
	KRA105S		12, -5	
	KRA106S		20, -5	
Output Current		$-I_o$	100	mA
Total Power Dissipation		P_{tot}	200	mW
Junction Temperature		T_j	150	°C
Storage Temperature Range		T_{stg}	- 55 to + 150	°C

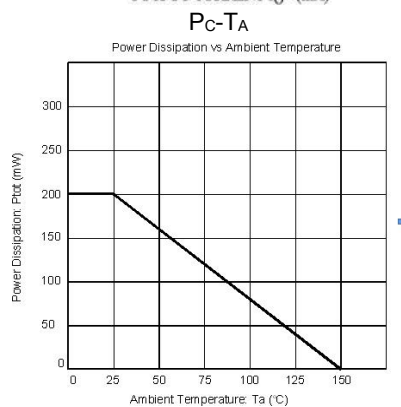
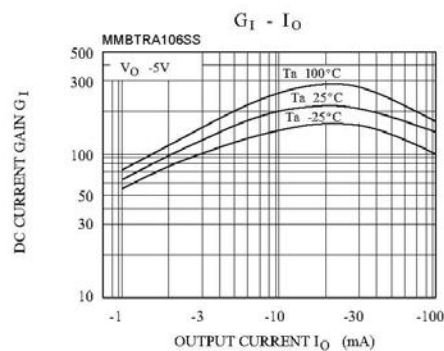
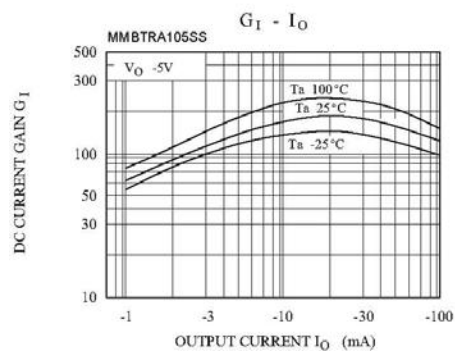
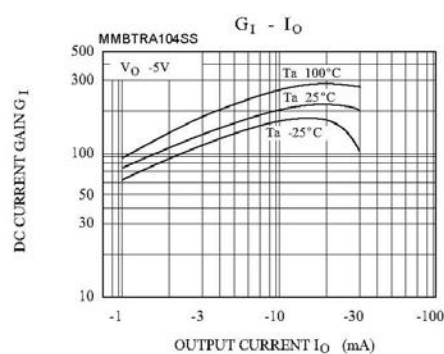
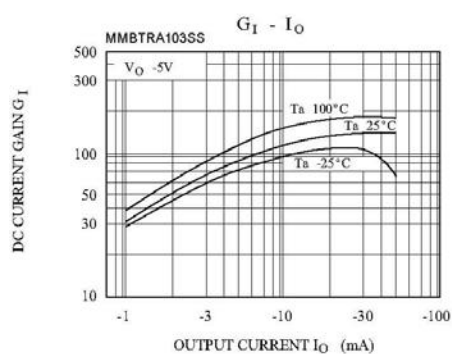
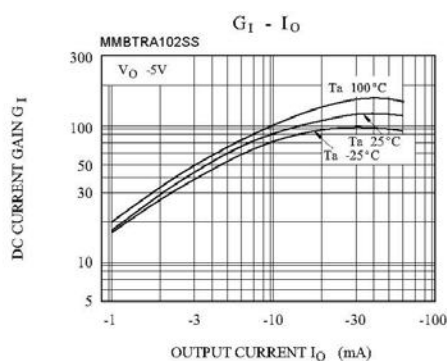
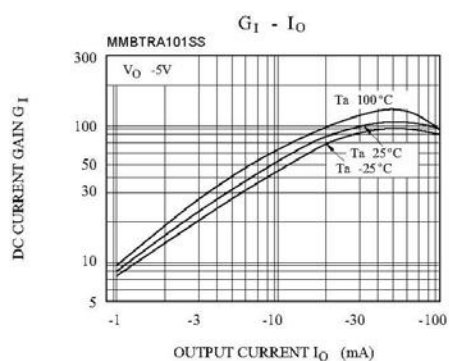
Characteristics at Ta = 25°C

Parameter	Symbol	Min.	Typ.	Max.	Unit
DC Current Gain at $-V_O = 5\text{ V}$, $-I_O = 10\text{ mA}$	G_I				
KRA101S		30	-	-	-
KRA102S		50	-	-	-
KRA103S		70	-	-	-
KRA104S		80	-	-	-
KRA105S		80	-	-	-
KRA106S		80	-	-	-
Output Cutoff Current at $-V_O = 50\text{ V}$	$-I_{O(OFF)}$	-	-	500	nA
Input Current at $-V_I = 5\text{ V}$	$-I_I$				
KRA101S		-	-	1.8	-
KRA102S		-	-	0.88	-
KRA103S		-	-	0.36	-
KRA104S		-	-	0.18	-
KRA105S		-	-	3.6	-
KRA106S		-	-	1.8	-
Output Voltage at $-I_O = 10\text{ mA}$, $-I_I = 0.5\text{ mA}$	$-V_{O(ON)}$	-	-	0.3	V
Input Voltage (ON) at $-V_O = 0.2\text{ V}$, $-I_O = 5\text{ mA}$	$-V_{I(ON)}$				
KRA101S		-	-	2	-
KRA102S		-	-	2.4	-
KRA103S		-	-	3	-
KRA104S		-	-	5	-
KRA105S		-	-	1.1	-
KRA106S		-	-	1.3	-
Input Voltage (OFF) at $-V_O = 5\text{ V}$, $-I_O = 0.1\text{ mA}$	$-V_{I(OFF)}$				
KRA101S~104S		1	-	-	-
KRA105S~106S		0.5	-	-	-
Transition Frequency at $-V_O = 10\text{ V}$, $-I_O = 5\text{ mA}$	$f_T^{1)}$	-	200	-	MHz

1) Characteristic of transistor only.







Ordering information

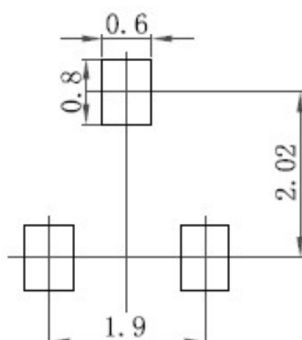
Package	Packing Description	Base Quantity	Packing Quantity
SOT-23	Tape/Reel, 7" reel	3000pcs/Reel	24000PCS/Box 120000PCS/Carton

Package Dimensions

SOT-23

Dim.	Millimeter (mm)		mil	
	Min.	Max.	Min.	Max.
A	0.9	1.15	35	45
A1	0.1		3.9	
bp	0.38	0.48	15	19
C	0.09	0.15	3.54	5.9
D	2.8	3.0	110	118
E	1.2	1.4	47	55
E	1.9		75	
E1	0.95		37	
HE	2.1	2.55	83	100
Lp	0.15	0.45	5.9	18
Q	0.45	0.55	18	22
v	0.2		7.9	
W	0.1		4	

The recommended mounting pad size



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