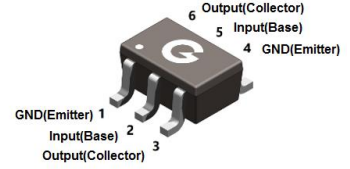
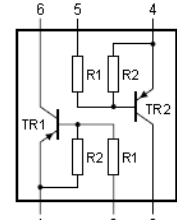


Features

- Two DTA123J transistors are built-in a package
- Built-in biasing resistors (R₁: 2.2kΩ, R₂: 47kΩ)
- Transistor elements are independent, eliminating interference
- Reduces component count
- RoHS compliant with Halogen-free

HF



SOT-363

Mechanical Data

- Case: SOT-363
- Molding Compound: UL Flammability Classification Rating 94V-0
- Terminals: Matte tin-plated leads; solderability-per MIL-STD-202, Method 208

Ordering Information

Part Number	Package	Shipping Quantity	Marking Code
UMB10N	SOT-363	3000 pcs / Tape & Reel	B10

Maximum Ratings (@ T_A = 25°C unless otherwise specified)

Parameter	Symbol	Value	Unit
Supply Voltage	V _{CC}	-50	V
Input Voltage	V _I	+5 to -12	V
Output Current	I _O	-100	mA
Collector Current	I _{C(Max)}	-100	mA

Thermal Characteristics

Parameter	Symbol	Value	Unit
Power Dissipation (T _A = 25°C)	P _D	150	mW
Thermal Resistance Junction-to-Air	R _{θJA}	833	°C/W
Operating Junction Temperature Range	T _J	-55 ~ +150	°C
Storage Temperature Range	T _{STG}	-55 ~ +150	°C

Electrical Characteristics (@ $T_A = 25^\circ\text{C}$ unless otherwise specified)

Parameter	Symbol	Test Condition	Min.	Typ.	Max.	Unit
Input Voltage	$V_{I(OFF)}$	$V_{CC} = -5\text{V}, I_o = -100\mu\text{A}$	-0.5	-	-	V
Input Voltage	$V_{I(ON)}$	$V_o = -0.3\text{V}, I_o = -5\text{mA}$	-	-	-1.1	V
Output Voltage	$V_{O(on)}$	$I_o = -5\text{mA}, I_i = -0.25\text{mA}$	-	-	-0.3	V
Input Current	I_i	$V_i = -5\text{V}$	-	-	-3.6	mA
Output Current	$I_{O(off)}$	$V_{CC} = -50\text{V}, V_i = 0\text{V}$	-	-	-0.5	μA
DC Current Gain	G_I	$V_o = -5\text{V}, I_o = -10\text{mA}$	80	-	-	-
Input Resistor	R_1		1.54	2.2	2.86	k Ω
Resistance ratio	R_2/R_1		17	21	26	-
Gain-Bandwidth Product	f_T	$V_{CE} = -10\text{V}, I_E = -5\text{mA}$ $f = 100\text{MHz}$	-	250	-	MHz

Ratings and Characteristic Curves (@ $T_A = 25^\circ\text{C}$ unless otherwise specified)

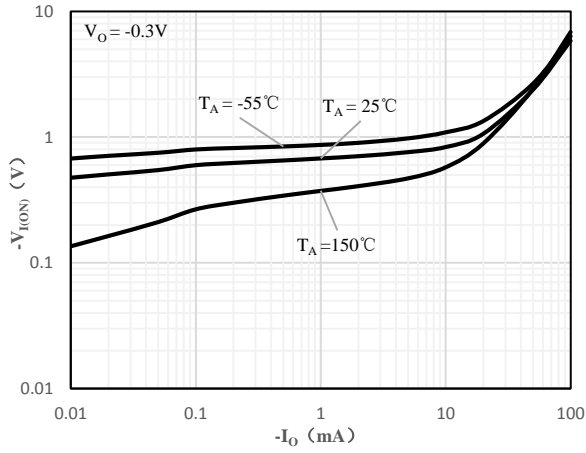


Fig 1 Input Voltage vs Output Current

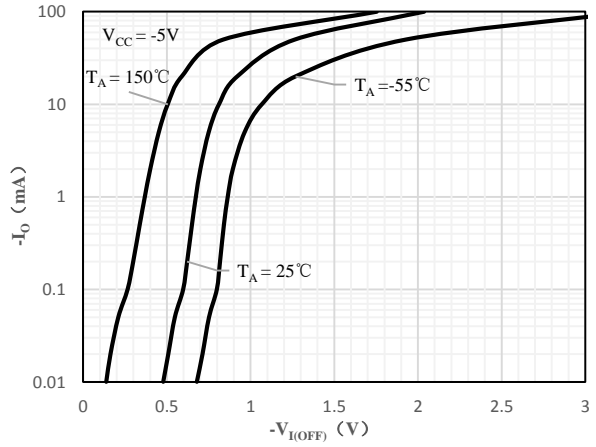


Fig 2 Output Current vs Input Voltage

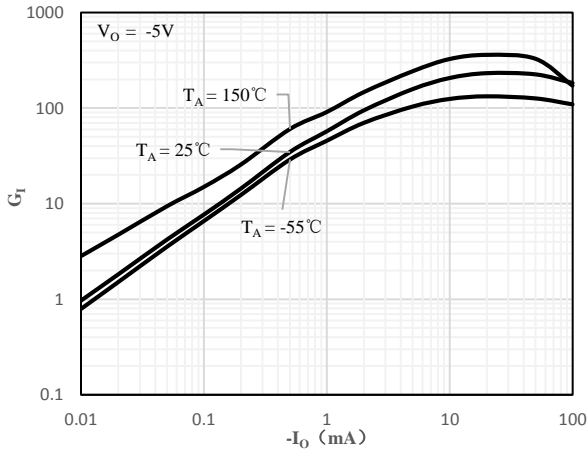


Fig 3 DC Current Gain vs Output Current

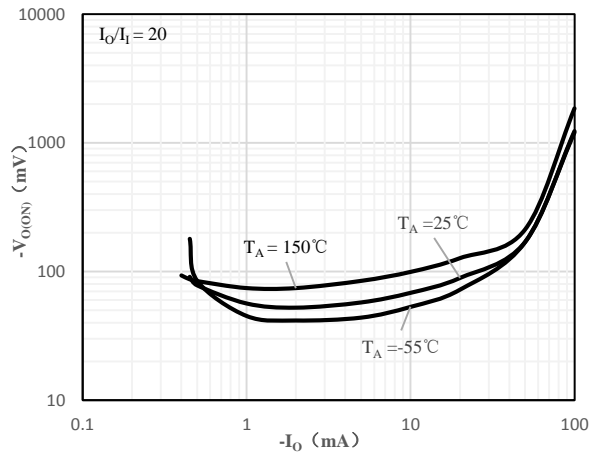
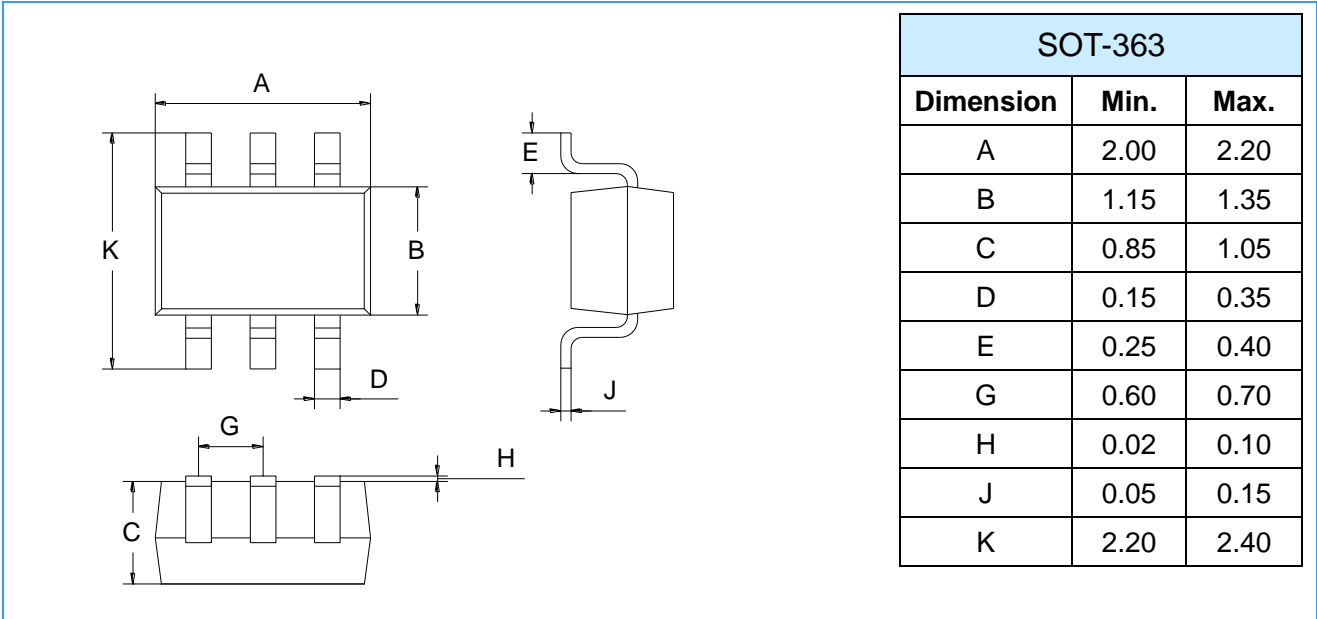


Fig 4 Output Voltage vs Output Current

Package Outline Dimensions (Unit: mm)



Mounting Pad Layout (Unit: mm)

