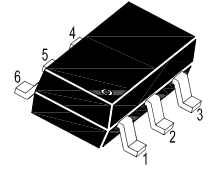
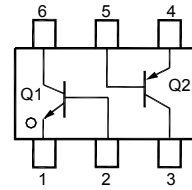


■ NPN / PNP Silicon Epitaxial Planar Transistors



1. Emitter 2. Base 3. Collector  
4. Emitter 5. Base 6. Collector

■ Simplified outline(SOT-363)

■ Q1 Maximum Ratings ( $T_a = 25^\circ\text{C}$ )

Parameter	Symbol	Value	Unit
Collector Base Voltage	$V_{CBO}$	180	V
Collector Emitter Voltage	$V_{CEO}$	160	V
Emitter Base Voltage	$V_{EBO}$	6	V
Collector Current	$I_C$	0.2	A
Power Dissipation	$P_{tot}$	0.2	W
Thermal Resistance from Junction to Ambient Air	$R_{\theta JA}$	625	$^\circ\text{C/W}$
Junction Temperature	$T_j$	150	$^\circ\text{C}$
Storage Temperature Range	$T_{stg}$	- 55 to + 150	$^\circ\text{C}$

■ Q2 Maximum Ratings ( $T_a = 25^\circ\text{C}$ )

Parameter	Symbol	Value	Unit
Collector Base Voltage	$-V_{CBO}$	160	V
Collector Emitter Voltage	$-V_{CEO}$	150	V
Emitter Base Voltage	$-V_{EBO}$	5	V
Collector Current	$-I_C$	0.2	A
Power Dissipation	$P_{tot}$	0.2	W
Thermal Resistance from Junction to Ambient Air	$R_{\theta JA}$	625	$^\circ\text{C/W}$
Junction Temperature	$T_j$	150	$^\circ\text{C}$
Storage Temperature Range	$T_{stg}$	- 55 to + 150	$^\circ\text{C}$

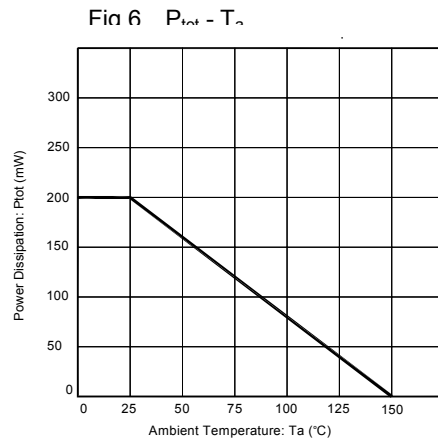
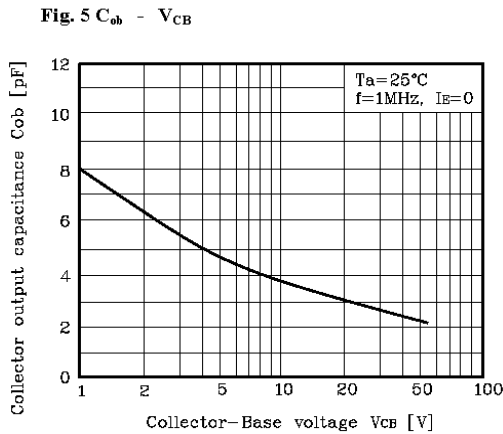
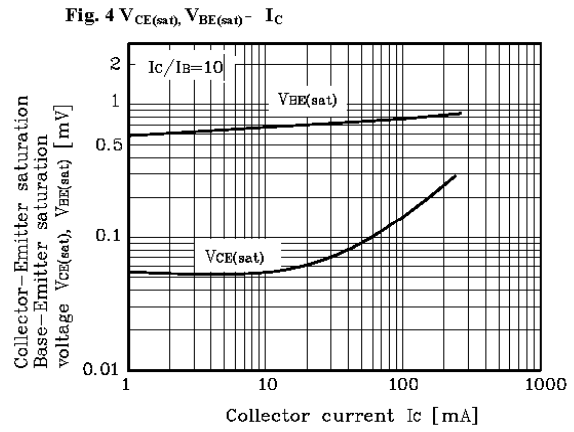
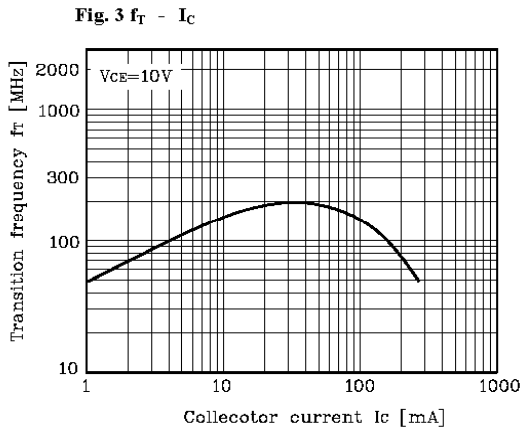
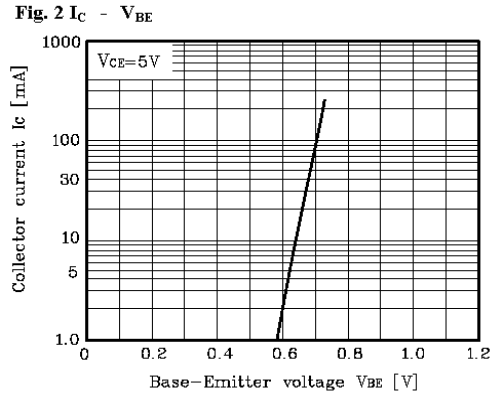
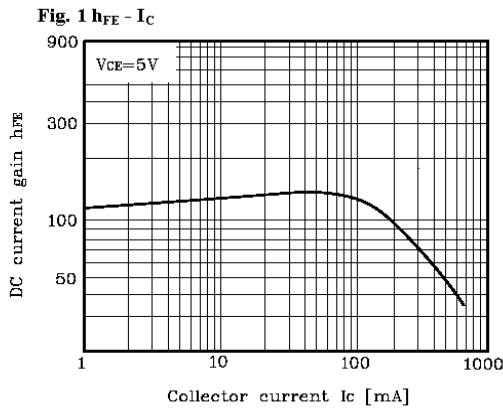
**■ Q1 Electrical Characteristics at  $T_a = 25^\circ\text{C}$** 

Parameter	Symbol	Min.	Max.	Unit
DC Current Gain at $V_{CE} = 5\text{ V}$ , $I_C = 1\text{ mA}$ at $V_{CE} = 5\text{ V}$ , $I_C = 10\text{ mA}$ at $V_{CE} = 5\text{ V}$ , $I_C = 50\text{ mA}$	$h_{FE}$	80 100 30	- 300 -	- - -
Collector Base Cutoff Current at $V_{CB} = 120\text{ V}$	$I_{CBO}$	-	0.05	$\mu\text{A}$
Emitter Base Cutoff Current at $V_{EB} = 4\text{ V}$	$I_{EBO}$	-	0.05	$\mu\text{A}$
Collector Base Breakdown Voltage at $I_C = 100\text{ }\mu\text{A}$	$V_{(BR)CBO}$	180	-	V
Collector Emitter Breakdown Voltage at $I_C = 1\text{ mA}$	$V_{(BR)CEO}$	160	-	V
Emitter Base Breakdown Voltage at $I_E = 10\text{ }\mu\text{A}$	$V_{(BR)EBO}$	6	-	V
Collector Emitter Saturation Voltage at $I_C = 10\text{ mA}$ , $I_B = 1\text{ mA}$ at $I_C = 50\text{ mA}$ , $I_B = 5\text{ mA}$	$V_{CE(sat)}$	- -	0.15 0.2	V
Base Emitter Saturation Voltage at $I_C = 10\text{ mA}$ , $I_B = 1\text{ mA}$ at $I_C = 50\text{ mA}$ , $I_B = 5\text{ mA}$	$V_{BE(sat)}$	- -	1 1	V
Current Gain Bandwidth Product at $V_{CE} = 10\text{ V}$ , $I_C = 10\text{ mA}$ , $f = 100\text{ MHz}$	$f_T$	100	300	MHz
Collector Output Capacitance at $V_{CB} = 10\text{ V}$ , $I_E = 0$ , $f = 1\text{ MHz}$	$C_{ob}$	-	6	pF

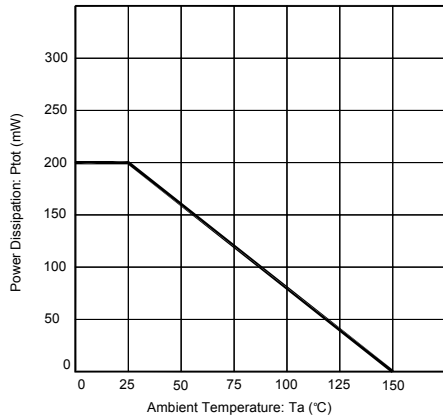
**■ Q2 Electrical Characteristics at  $T_a = 25^\circ\text{C}$** 

Parameter	Symbol	Min.	Max.	Unit
DC Current Gain at $-V_{CE} = 5\text{ V}$ , $-I_C = 1\text{ mA}$ at $-V_{CE} = 5\text{ V}$ , $-I_C = 10\text{ mA}$ at $-V_{CE} = 5\text{ V}$ , $-I_C = 50\text{ mA}$	$h_{FE}$	50 100 50	- 300 -	- - -
Collector Base Cutoff Current at $-V_{CB} = 120\text{ V}$	$-I_{CBO}$	-	50	nA
Emitter Base Cutoff Current at $-V_{EB} = 3\text{ V}$	$-I_{EBO}$	-	50	nA
Collector Base Breakdown Voltage at $-I_C = 100\text{ }\mu\text{A}$	$-V_{(BR)CBO}$	160	-	V
Collector Emitter Breakdown Voltage at $-I_C = 1\text{ mA}$	$-V_{(BR)CEO}$	150	-	V
Emitter Base Breakdown Voltage at $-I_E = 10\text{ }\mu\text{A}$	$-V_{(BR)EBO}$	5	-	V
Collector Emitter Saturation Voltage at $-I_C = 10\text{ mA}$ , $-I_B = 1\text{ mA}$ at $-I_C = 50\text{ mA}$ , $-I_B = 5\text{ mA}$	$-V_{CE(sat)}$	- -	0.2 0.5	V
Base Emitter Saturation Voltage at $-I_C = 10\text{ mA}$ , $-I_B = 1\text{ mA}$ at $-I_C = 50\text{ mA}$ , $-I_B = 5\text{ mA}$	$-V_{BE(sat)}$	- -	1 1	V
Current Gain Bandwidth Product at $-V_{CE} = 10\text{ V}$ , $-I_C = 10\text{ mA}$ , $f = 100\text{ MHz}$	$f_T$	100	300	MHz
Output Capacitance at $-V_{CB} = 10\text{ V}$ , $I_E = 0$ , $f = 1\text{ MHz}$	$C_{obo}$	-	6	pF

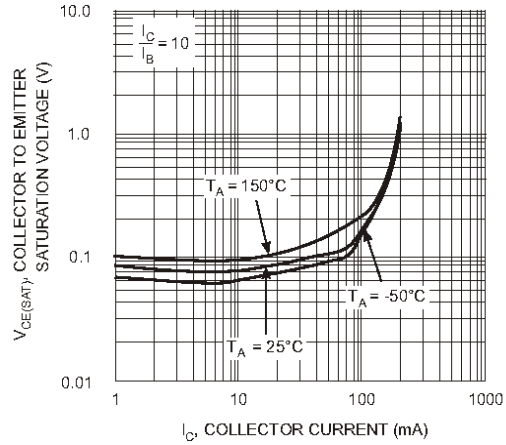
**Q1(NPN transistor)**



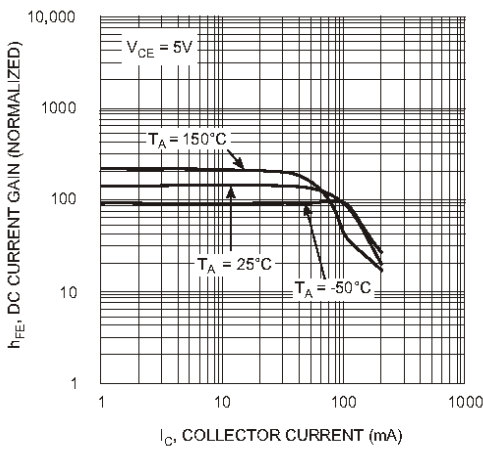
**Q2(PNP transistor)**



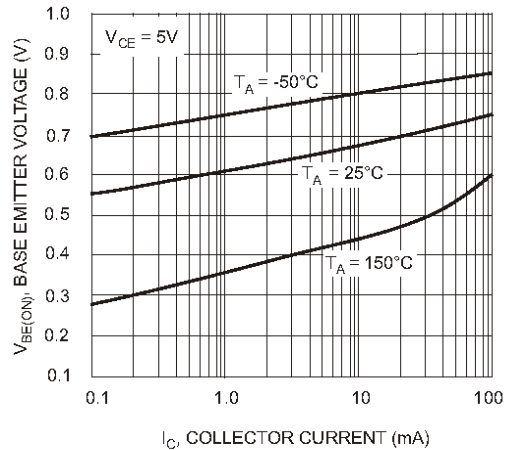
**Fig.1 Max Power Dissipation vs Ambient Temperature**



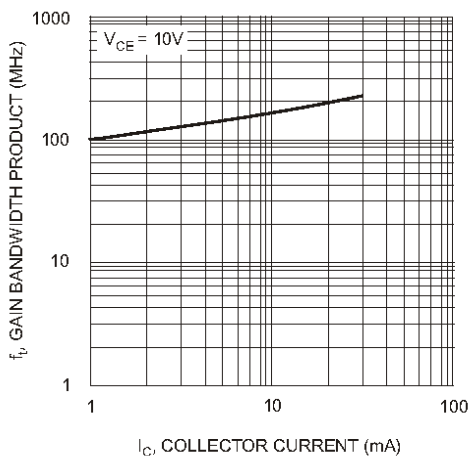
**Fig. 2, Collector Emitter Saturation Voltage vs. Collector Current**



**Fig. 3, DC Current Gain vs. Collector Current**

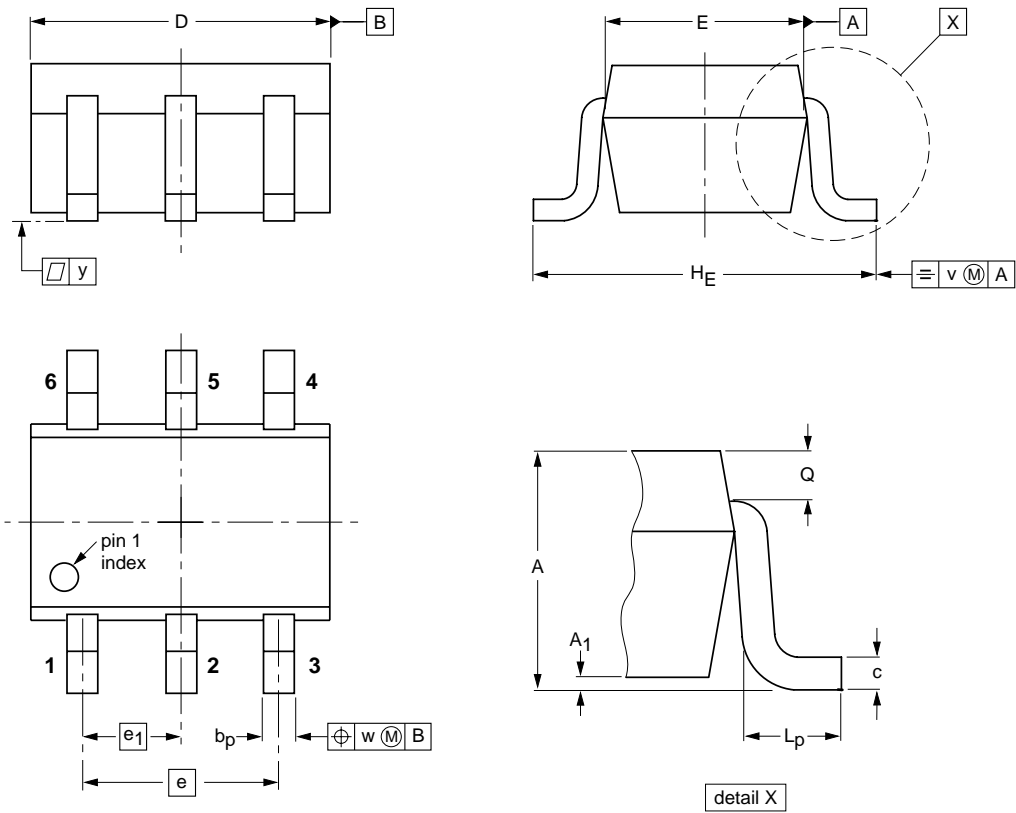


**Fig. 4, Base Emitter Voltage vs. Collector Current**



**Fig. 5, Gain Bandwidth Product vs Collector Current**

Package Outline SOT-363



DIMENSIONS (mm are the original dimensions)

UNIT	A	A <sub>1</sub> max	b <sub>p</sub>	c	D	E	e	e <sub>1</sub>	H <sub>E</sub>	L <sub>p</sub>	Q	v	w	y
mm	1.1 0.8	0.1	0.30 0.20	0.25 0.10	2.2 1.8	1.35 1.15	1.3	0.65	2.2 2.0	0.45 0.15	0.25 0.15	0.2	0.2	0.1

Summary of Packing Options

Package	Package Description	Packing Quantity	Industry Standard
SOT-363	Tape/Reel, 7" reel	3000	EIA-481-1

单击下面可查看定价，库存，交付和生命周期等信息

[>>YFW\(佑风微\)](#)