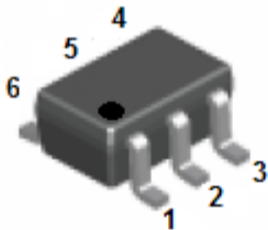


### Features

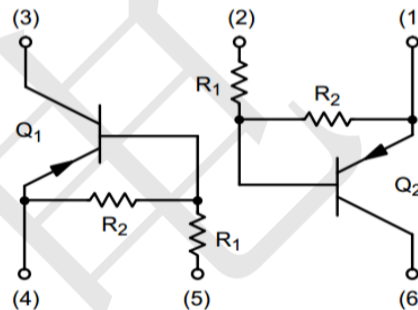
- Epitaxial Planar Die Construction.
- Complementary NPN Types Available(DTC)
- Built-in Biasing Resistors,  $R_1=R_2$ .
- Also Available in Lead Free Version.

### Mechanical Data

- Case: SOT-363.
- Molding compound, UL flammability classification rating 94V-0.
- Terminals: Matte tin plated leads, solderable per MIL-STD-202, Method 208.



SOT-363



### Maximum Ratings (@ $T_A=25^\circ\text{C}$ unless otherwise specified)

Symbol	Parameter	Value	Units
<b>MAXIMUM RATINGS</b>			
$V_{CC}$	Supply Voltage	-50	V
$V_{IN}$	Input Voltage	+10 to -40	V
$I_o$	Output Current	-50	mA
$I_c$	Collector Current	-100	mA
<b>Thermal Characteristic</b>			
$P_D$	Total Power Dissipation, $T_a \leq 25^\circ\text{C}$	150	mW
$T_J$	Junction Temperature	150	$^\circ\text{C}$
$T_{STG}$	Storage Temperature Range	-55 to +150	$^\circ\text{C}$

**Electrical Characteristics** (@TA=25°C unless otherwise specified)

Parameter	Symbol	Test conditions	MIN	TYP	MAX	UNIT
Input Voltage	$V_{I(off)}$	$V_{CC}=-5V, I_O=-100\mu A$	-0.5	-1.1	-	V
	$V_{I(on)}$	$V_O=-0.3V, I_O=-10mA$	-	-1.9	-3	V
Output Voltage	$V_{O(on)}$	$I_O=-10mA, I_I=-0.5mA$	-	-0.1	-0.3	V
Input Current	$I_I$	$V_I=-5V$	-	-	-0.88	mA
Output Current	$I_{O(off)}$	$V_{CC}=-50V, V_I=0V$	-	-	-0.5	uA
DC Current Gain	$G_I$	$V_O=-5V, I_O=-5mA$	30	-	-	-
Input Resistor	$R_1$		7	10	13	kΩ
Resistance Ratio	$R_2/R_1$		0.8	1	1.2	-
Gain-Bandwidth Product	$f_T$	$V_{CE}=-10V, I_E=5mA,$ $f=100MHz$	-	250	-	MHz

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

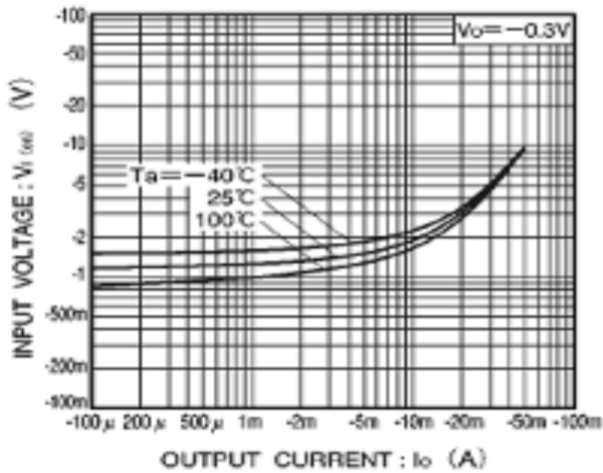


Fig.1 Input voltage vs. output current (ON characteristics)

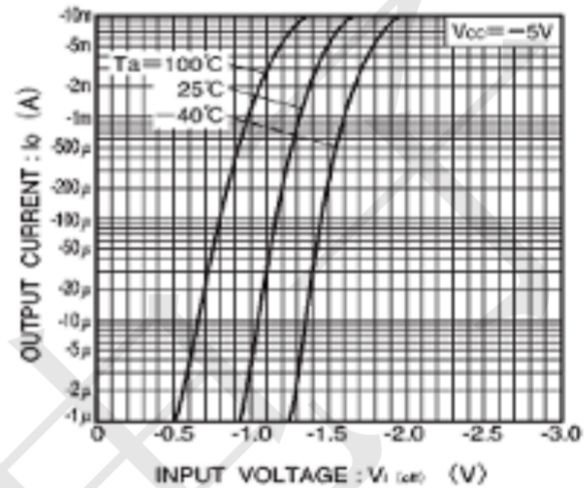


Fig.2 Output current vs. input voltage (OFF characteristics)

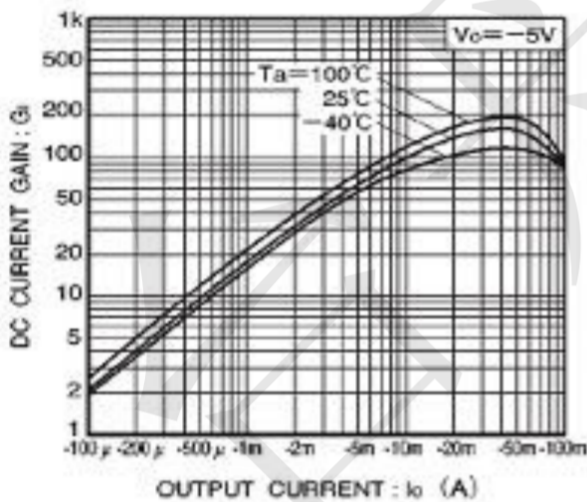
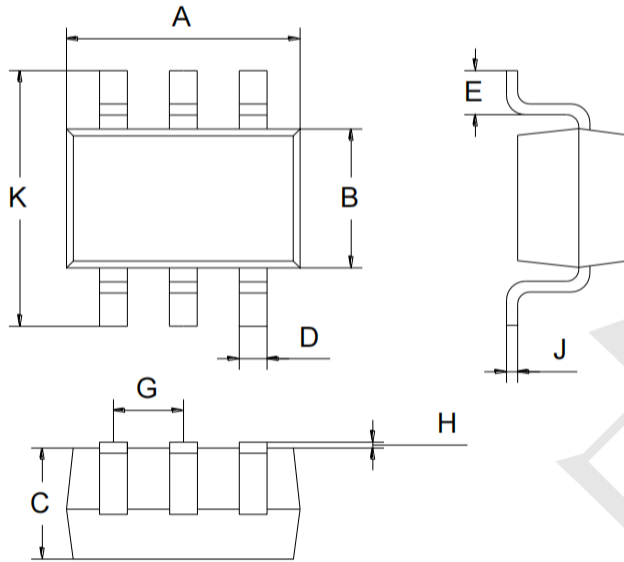


Fig.3 DC current gain vs. output current

**Package Outline Dimensions (unit:mm)**  
**SOT-363**



SOT-363		
Dim	Min	Max
A	2.00	2.20
B	1.15	1.35
C	0.85	1.05
D	0.15	0.35
E	0.25	0.40
G	0.60	0.70
H	0.02	0.10
J	0.05	0.15
K	2.20	2.40

**SOLDERING FOOTPRINT (unit:mm)**

