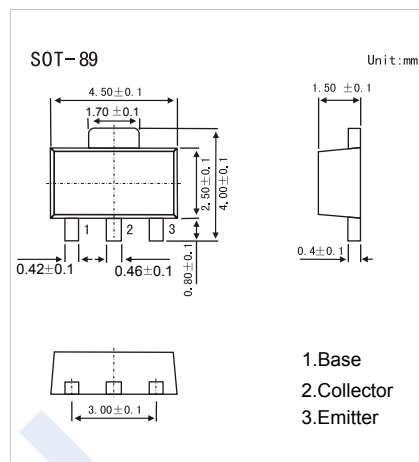


NPN Transistors

2SC3736

■ Features

- High Speed, High Voltage Switching
- Low Collector Saturation Voltage
- Complementary to 2SA1463

■ Absolute Maximum Ratings $T_a = 25^\circ\text{C}$

Parameter	Symbol	Rating	Unit
Collector - Base Voltage	V_{CB0}	80	V
Collector - Emitter Voltage	V_{CE0}	45	
Emitter - Base Voltage	V_{EB0}	5	
Collector Current - Continuous	I_C	1	A
Collector Current - Pulse *1	I_{CP}	2	
Collector Power Dissipation	P_C	2	W
Junction Temperature	T_J	150	$^\circ\text{C}$
Storage Temperature Range	T_{stg}	-55 to 150	

*1 : Pulse : $PW \leq 10\text{ms}$, Duty Cycle $\leq 50\%$

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

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Collector- base breakdown voltage	V_{CB0}	$I_C = 100\ \mu\text{A}$, $I_E = 0$	80			V
Collector- emitter breakdown voltage	V_{CE0}	$I_C = 1\ \text{mA}$, $I_B = 0$	45			
Emitter - base breakdown voltage	V_{EB0}	$I_E = 100\ \mu\text{A}$, $I_C = 0$	5			
Collector-base cut-off current	I_{CB0}	$V_{CB} = 80\text{V}$, $I_E = 0$			0.5	μA
Emitter cut-off current	I_{EB0}	$V_{EB} = 4\text{V}$, $I_C = 0$			0.5	
Collector-emitter saturation voltage	$V_{CE(sat)}$	$I_C = 500\ \text{mA}$, $I_B = 50\ \text{mA}$		0.17	0.4	V
Base - emitter saturation voltage	$V_{BE(sat)}$	$I_C = 500\ \text{mA}$, $I_B = 50\ \text{mA}$		0.9	1.2	
DC current gain	h_{FE}	$V_{CE} = 10\text{V}$, $I_C = 50\ \text{mA}$	60		200	
Turn-on time	t_{on}	$I_C = 500\ \text{mA}$, $I_{B1} = -I_{B2} = 50\ \text{mA}$		20	40	ns
Storage time	t_{stg}			55	80	
Turn-off time	t_{off}			72	100	
Collector output capacitance	C_{ob}	$V_{CB} = 5\text{V}$, $I_E = 0$, $f = 1\text{MHz}$		6.7	10	pF
Transition frequency	f_T	$V_{CE} = 10\text{V}$, $I_E = -100\ \text{mA}$	300	380		MHz

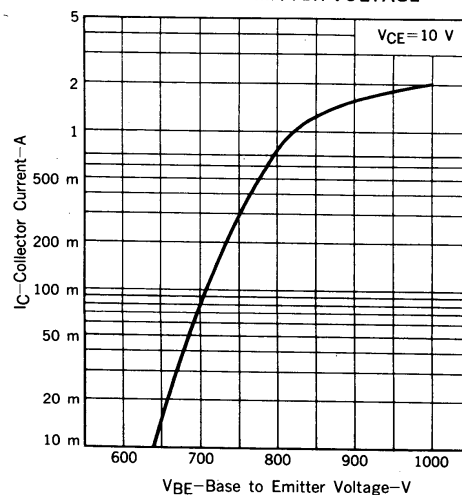
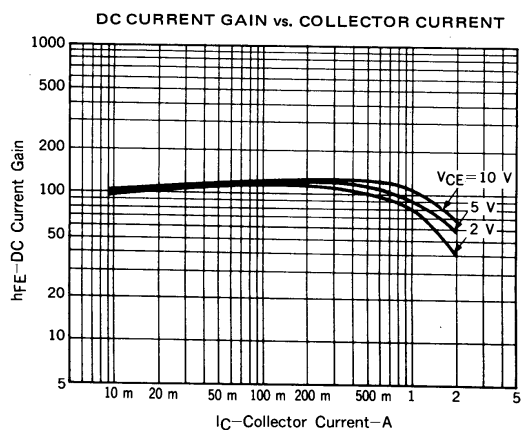
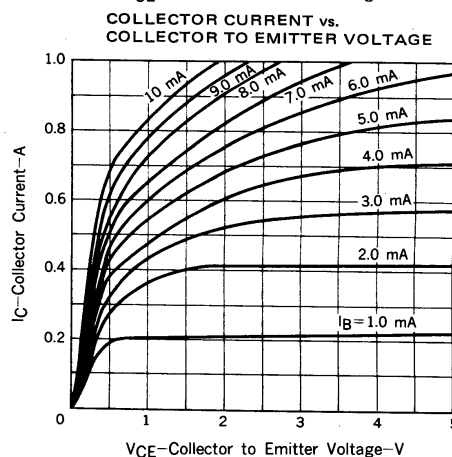
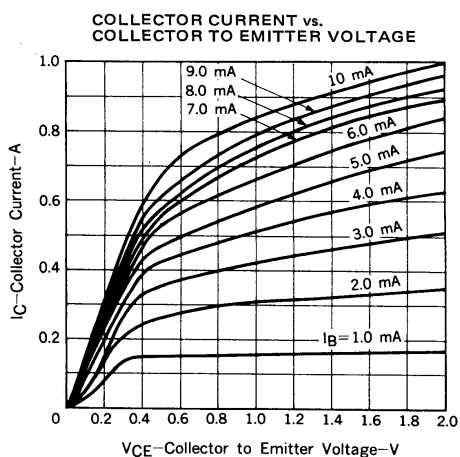
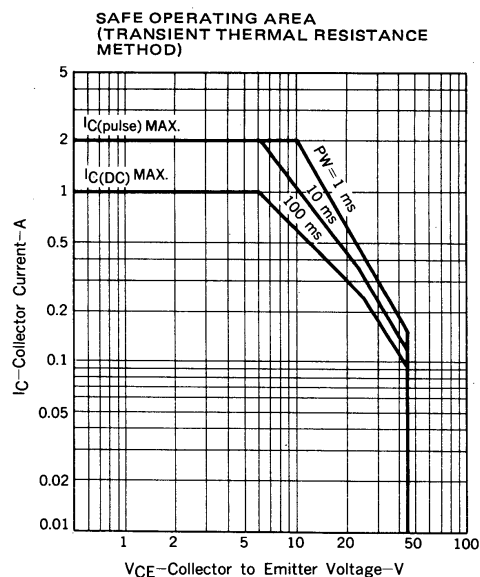
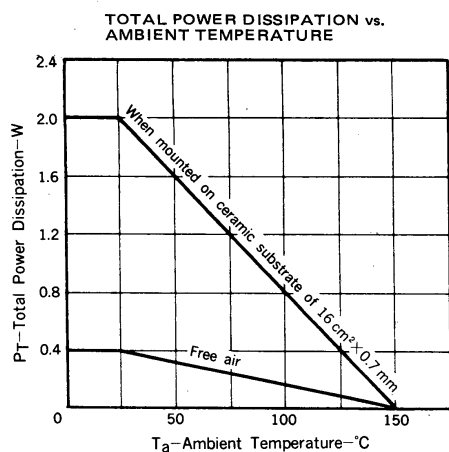
■ Classification of h_{FE}

Type	2SC3736-L	2SC3736-K
Range	60-120	100-200
Marking	OL	OK

NPN Transistors

2SC3736

■ Typical Characteristics



NPN Transistors

2SC3736

■ Typical Characteristics

