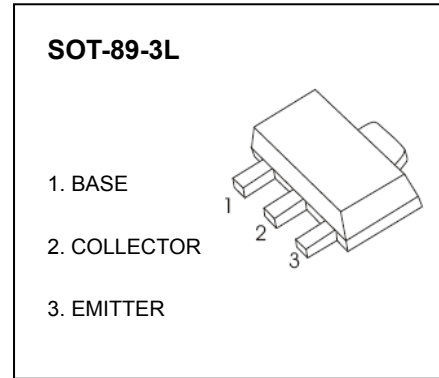


SOT-89-3L Plastic-Encapsulate Transistors

■ Features

- High collector to emitter voltage: $V_{CE0} > -120V$.



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

Parameter	Symbol	Rating	Unit
Collector-base voltage	V_{CB0}	-120	V
Collector-emitter voltage	V_{CE0}	-120	V
Emitter-base voltage	V_{EB0}	-5	V
Collector current	I_c	-0.7	A
Collector current (pulse) *1	$I_{c(pu)}$	-1.2	A
Collector power dissipation	P_c	2	W
Junction temperature	T_j	150	$^\circ C$
Storage temperature	T_{stg}	-55 to +150	$^\circ C$

*1. $PW \leq 10ms, duty\ cycle \leq 50\%$

■ Electrical Characteristics $T_a = 25^\circ C$

Parameter	Symbol	Testconditons	Min	Typ	Max	Unit
Collector cutoff current	I_{CB0}	$V_{CB} = -120V, I_E = 0$			-100	nA
Emitter cutoff current	I_{EB0}	$V_{EB} = -5V, I_c = 0$			-100	nA
DC current gain *	h_{FE}	$V_{CE} = -1V, I_c = -100mA$	90	200	400	
		$V_{CE} = -1V, I_c = -5.0mA$	45	200		
Collector-emitter saturation voltage *	$V_{CE(sat)}$	$I_c = -500mA, I_B = -50mA$		-0.4	-0.6	V
Base-emitter saturation voltage *	$V_{BE(sat)}$	$I_c = -500mA, I_B = -50mA$		-0.9	-1.5	V
Base-emitter voltage *	V_{BE}	$V_{CE} = -10V, I_c = -10mA$	-550	-620	-650	mV
Output capacitance	C_{ob}	$V_{CB} = -10V, I_E = 0, f = 1.0MHz$		14		pF
Transition frequency	f_T	$V_{CE} = -10V, I_E = 10mA$		75		MHz

* $PW \leq 350\mu s, duty\ cycle \leq 2\%$

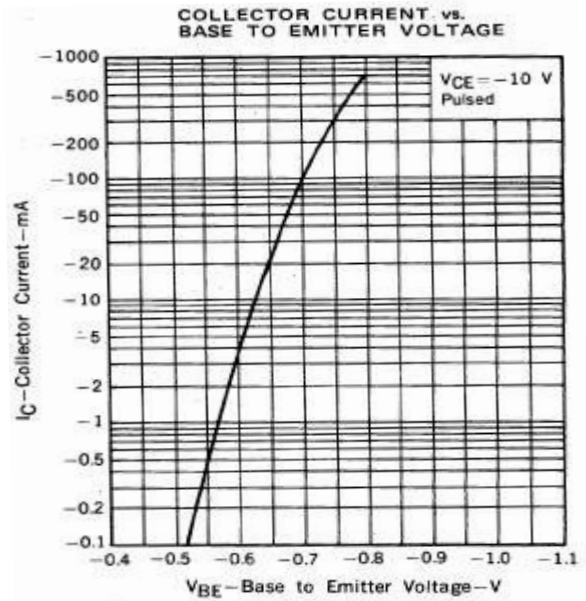
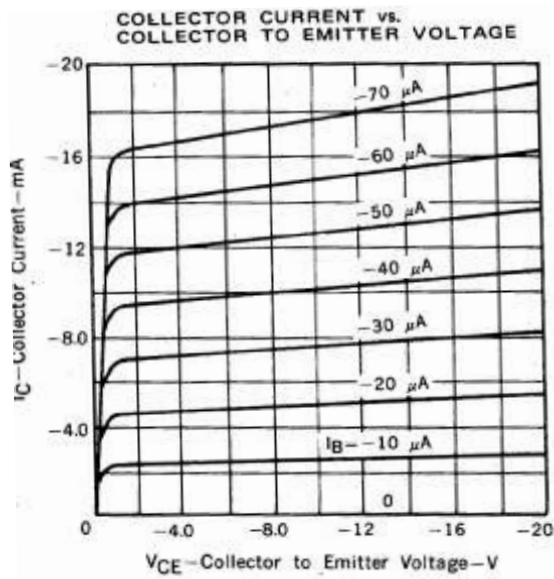
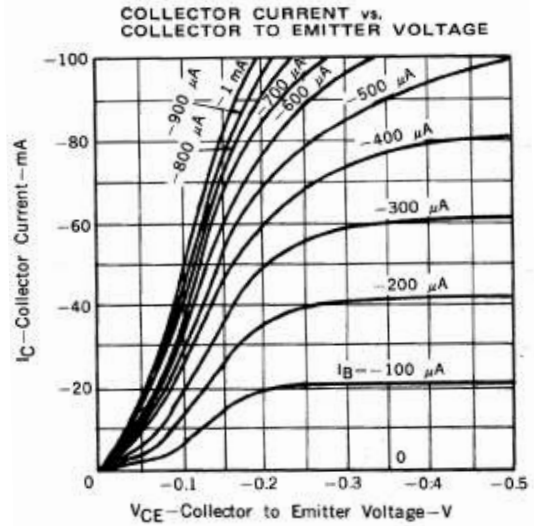
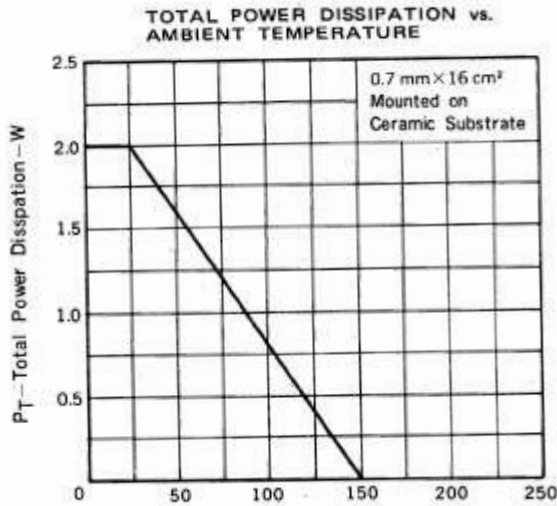
■ hFE Classification

Marking	KR	KQ	KP
hFE	90~180	135~270	200~400



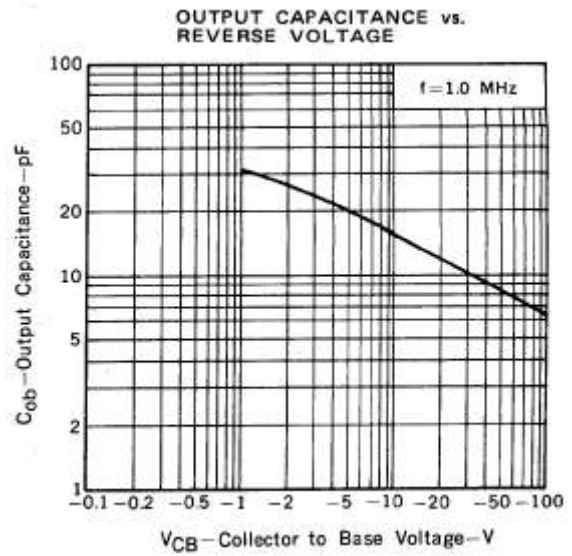
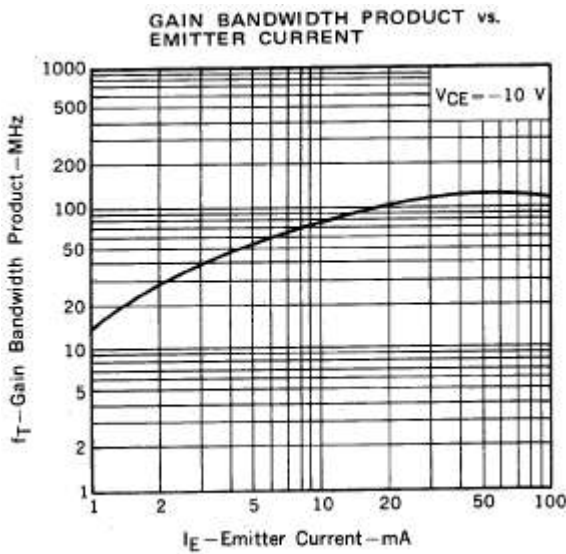
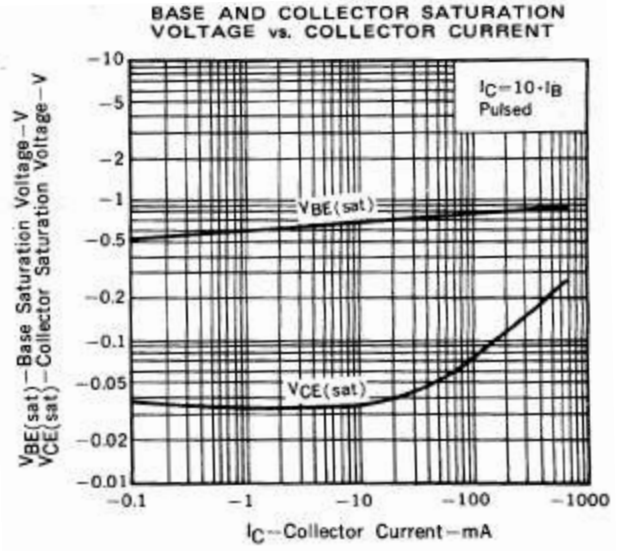
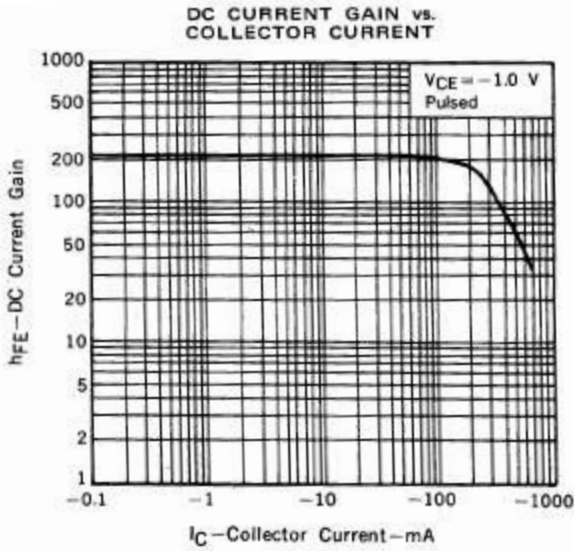
■ Typical Characteristics

TYPICAL CHARACTERISTICS ($T_a = 25^\circ\text{C}$)



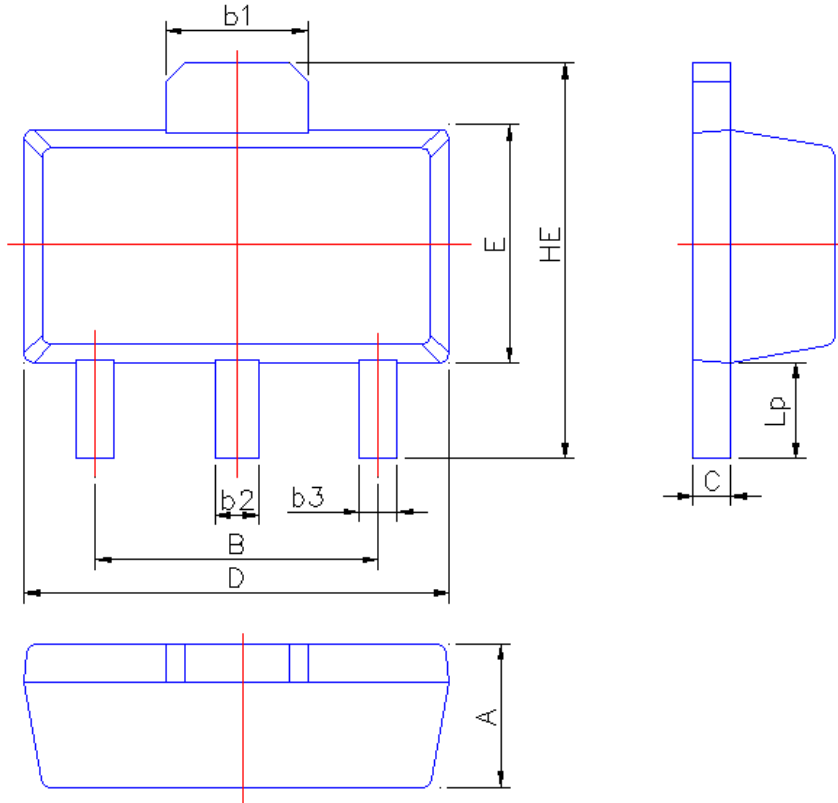


Typical Characteristics





SOT-89 PACKAGE OUTLINE



Symbol	Dimension in Millimeters	
	Min	Max
A	1.40	1.60
B	2.95	3.05
b1	1.45	1.70
b2	0.45	0.56
b3	0.35	0.50
C	0.35	0.50
D	4.40	4.60
E	2.35	2.55
HE	3.90	4.40
Lp	0.90	1.10