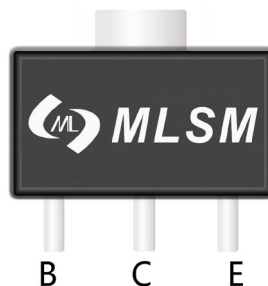


Features

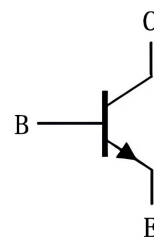
- Large collector power dissipation P_C
- Low collector-emitter saturation voltage

$V_{CE(sat)}$

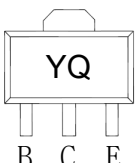
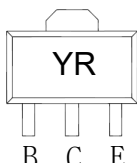
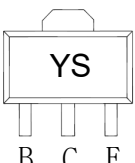
- Complementary to 2SB766A



SOT-89-3L top view



Schematic diagram

2SD874A: YQ	2SD874A: YR	2SD874A: YS
		



Halogen-Free

Maximum Ratings (Ta=25°C unless otherwise noted)

Symbol	Parameter	Value	Unit
V_{CBO}	Collector-Base Voltage	60	V
V_{CEO}	Collector-Emitter Voltage	50	V
V_{EBO}	Emitter-Base Voltage	5	V
I_C	Collector Current	1	A
P_C	Collector Power Dissipation	0.5	W
T_J, T_{stg}	Operation Junction and Storage Temperature Range	-55~+150	°C

Ordering Information (Example)

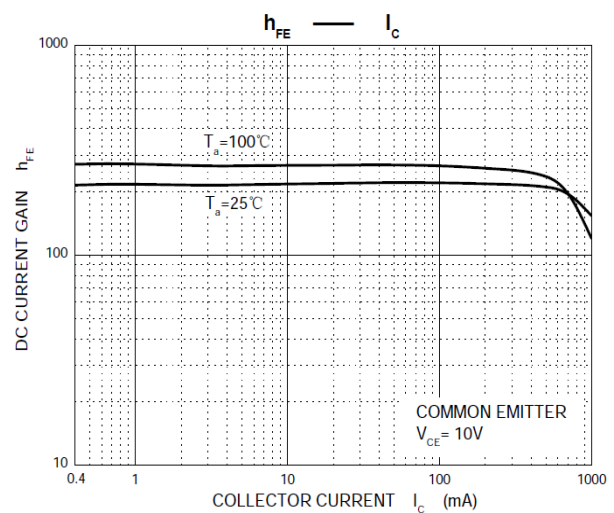
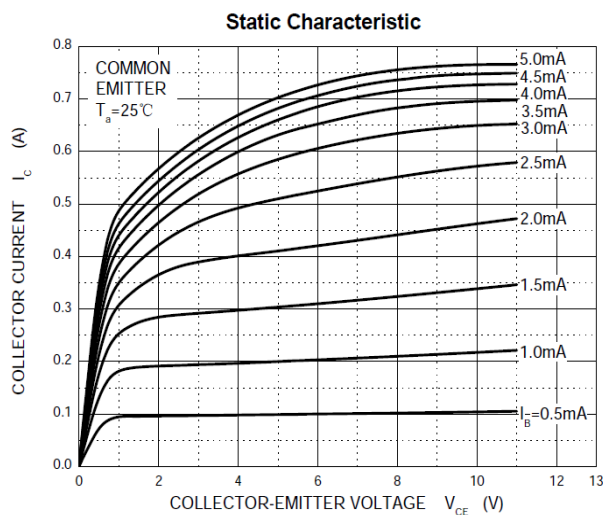
Type	Package	Marking	Minimum Package(pcs)	Inner Box Quantity(pcs)	Outer Carton Quantity(pcs)	Delivery Mode
2SD874A	SOT-89-3L	YQ/YR/YS	1,000	10,000	40,000	7"reel

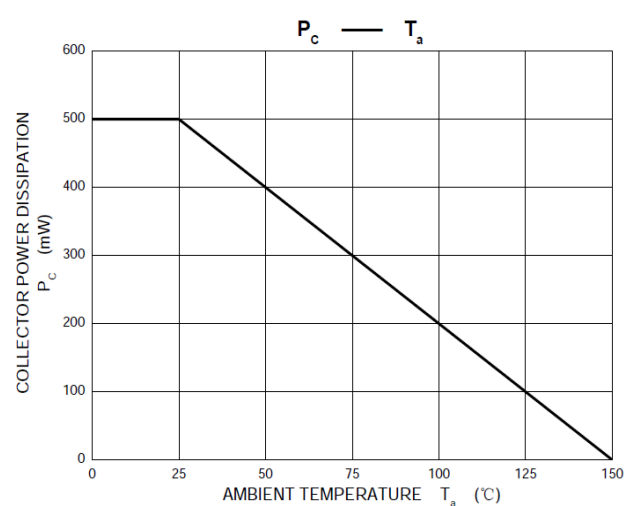
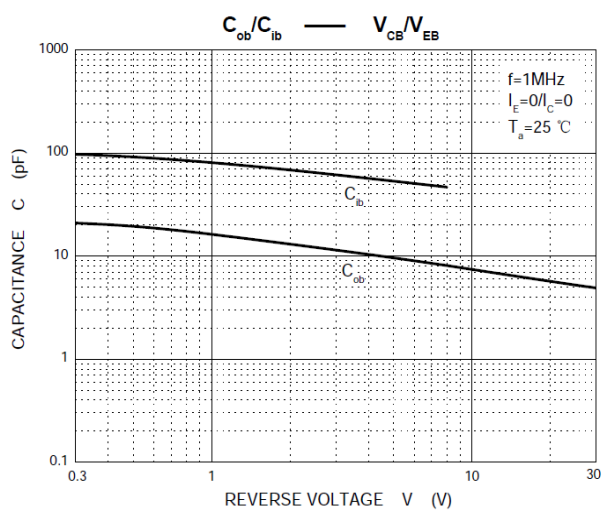
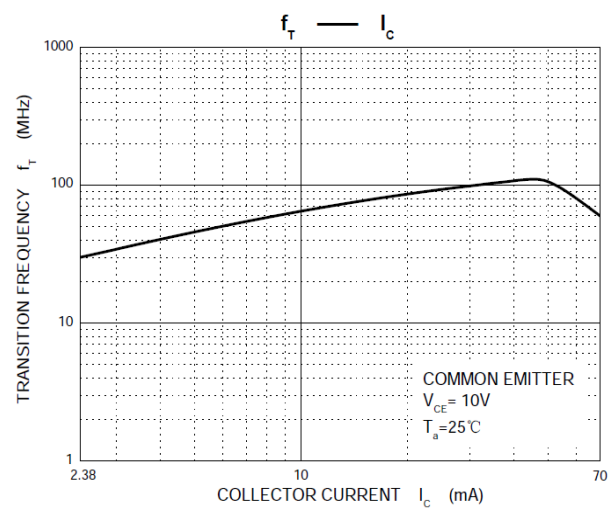
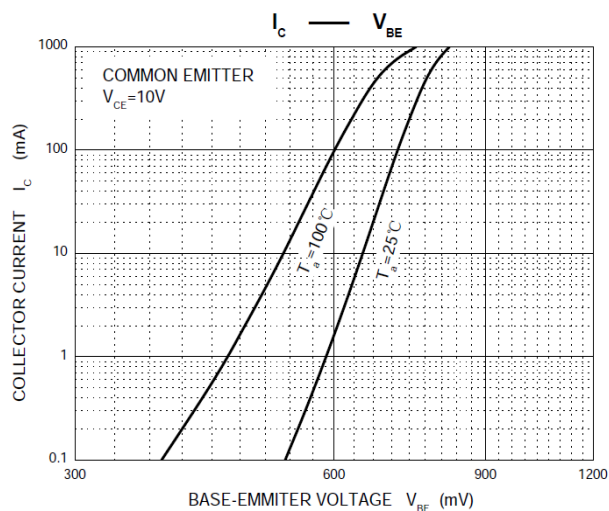
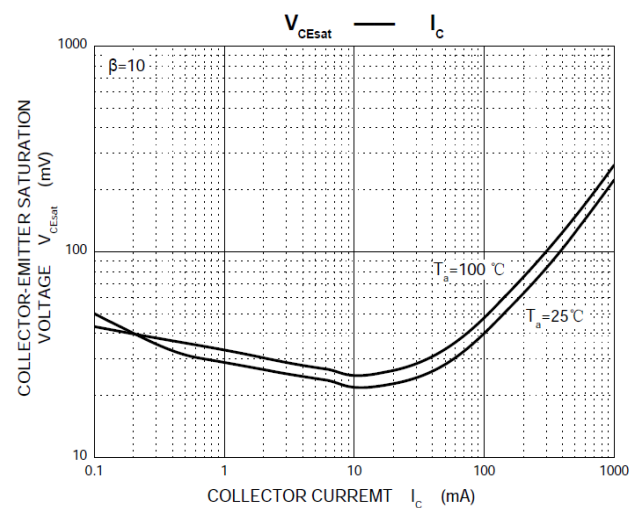
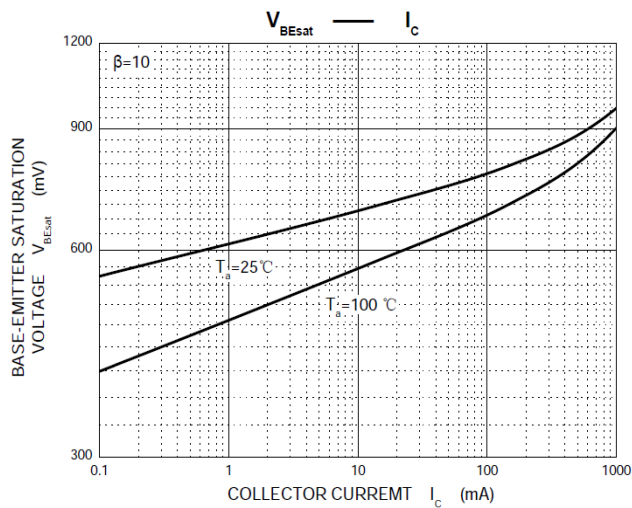
Electrical Characteristics (Ta=25°C unless otherwise specified)

Symbol	Parameter	Condition	Min	Typ	Max	Unit
$V_{(BR)CBO}$	Collector-base breakdown voltage	$I_C=10\mu A, I_E=0$	60	--	--	V
$V_{(BR)CEO}$	Collector-emitter breakdown voltage	$I_C=2mA, I_B=0$	50	--	--	V
$V_{(BR)EBO}$	Emitter-base breakdown voltage	$I_E=10\mu A, I_C=0$	5	--	--	V
I_{CBO}	Collector cut-off current	$V_{CB}=20V, I_E=0$	--	--	0.1	μA
I_{EBO}	Emitter cut-off current	$V_{EB}=4V, I_C=0$	--	--	0.1	μA
$H_{FE(1)}$	DC current gain	$V_{CE}=10V, I_C=500mA$	85	--	340	
$H_{FE(2)}$	DC current gain	$V_{CE}=5V, I_C=1A$	50	--	--	
$V_{CE(sat)}$	Collector-emitter saturation voltage	$I_C=500mA, I_B=50mA$	--	--	0.4	V
$V_{BE(sat)}$	Base-emitter saturation voltage	$I_C=500mA, I_B=50mA$	--	--	1.2	V
C_{ob}	Collector output capacitance	$V_{CB}=10V, I_E=0, f=1MHz$	--	20	--	pF
f_T	Transition frequency	$V_{CE}=10V, I_C=50mA, f=200MHz$	--	200	--	MHz

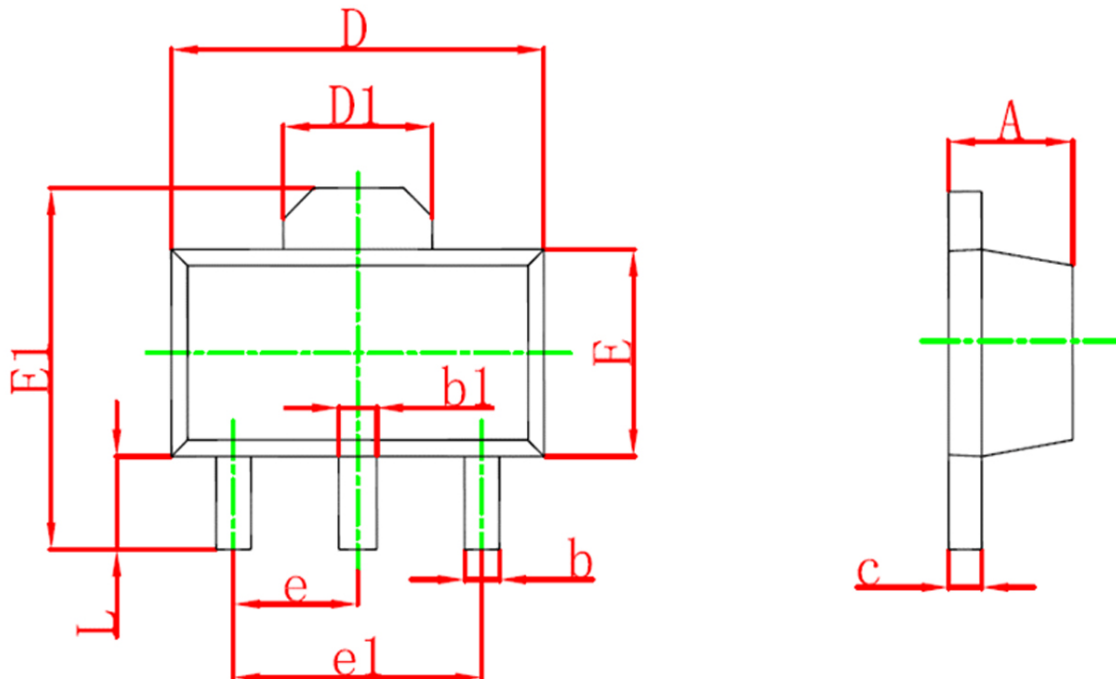
Classification of hFE

Rank	Q	R	S
Marking	YQ	YR	YS
Range	85-170	120-240	170-340

Typical Characteristics




SOT-89-3L Package information



Symbol	Dimensions in Millimeters(mm)		Dimensions in Inches	
	Min	Max	Min	Max
A	1.400	1.600	0.055	0.063
b	0.320	0.520	0.013	0.020
b1	0.400	0.580	0.016	0.023
c	0.350	0.440	0.014	0.017
D	4.400	4.600	0.173	0.181
D1	1.500 REF		0.061 REF	
E	2.300	2.600	0.091	0.102
E1	3.940	4.250	0.155	0.167
e	1.500 TYP		0.060 TYP	
e1	3.000 TYP		0.118 TYP	
L	0.900	1.200	0.035	0.047