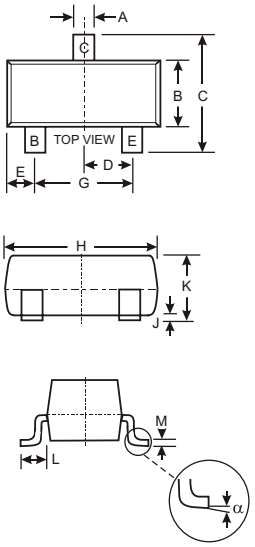
HAICHUANG SEMI

D882SS

NPN MEDIUM POWER LOW VOLTAGE TRANSISTOR

Features

- High current output up to 3A
- Low saturation voltage
- Complement to B772SS



SOT-23		
Dim	**Min**	**Max**
A	0.37	0.51
B	1.20	1.40
C	2.30	2.50
D	0.89	1.03
E	0.45	0.60
G	1.78	2.05
H	2.80	3.00
J	0.013	0.10
K	0.903	1.10
L	0.45	0.61
M	0.085	0.180
α	0°	8°
All Dimensions in mm		

Maximum Ratings @ T_A = 25°C unless otherwise specified

PARAMETER		SYMBOL	RATINGS	UNIT
Collector-Base Voltage		V_{CBO}	40	V
Collector-Emitter Voltage		V_{CEO}	30	V
Emitter-Base Voltage		V_{EBO}	5	V
Collector Current	Pulse	I_{cp}	7	A
	DC	I_c	3	A
Base Current		I_B	0.6	A
Collector Dissipation	T_C=25°C	P_C	10	W
	T_A=25°C		350	mW
Junction Temperature		T_J	+150	°C
Storage Temperature		T_{STG}	-55 ~ +150	°C

Electrical Characteristics @ T_A = 25°C unless otherwise specified

Parameter	Symbol	Test conditions	Min	Typ	Max	Unit
Collector-base breakdown voltage	V_{CBO}	I_C=100μ,I_E=0	40			V
Collector-emitter breakdown voltage	V_{CEO}	I_C=1mA, I_B=0	30			V
Emitter-base breakdown voltage	V_{EBO}	I_E=100μ,I_C=0	5			V
Collector cut-off current	I_{CBO}	V_{CB}=30V , I_E=0			1	μA
Emitter cut-off current	I_{EBO}	V_{EB}=3V , I_C=0			1	μA
DC current gain	$h_{FE(1)}$	V_{CE}=2V , I_C=20mA	30	200		
	$h_{FE(2)}$	V_{CE}=2V , I_C=1A	100	150	400	
Collector-emitter saturation voltage	$V_{CE(sat)}$	I_C=2V , I_B=0.2A		0.3	0.5	V
Base-emitter saturation voltage	$V_{BE(sat)}$	I_C=2V , I_B=0.2A		1.0	2.0	V
Collecter capactiance	C_{ob}	V_{CB}=10V,I_E=0,f=1MHz		45		pF
Transition frequency	f_T	V_{CE}=5V,I_C=0.1A		80		MHz

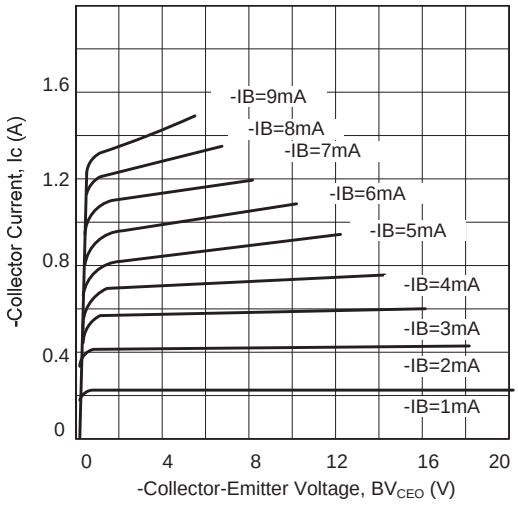
Note: Pulse test: P_W < 300μs, Duty Cycle < 2%

CLASSIFICATION OF $h_{FE(1)}$

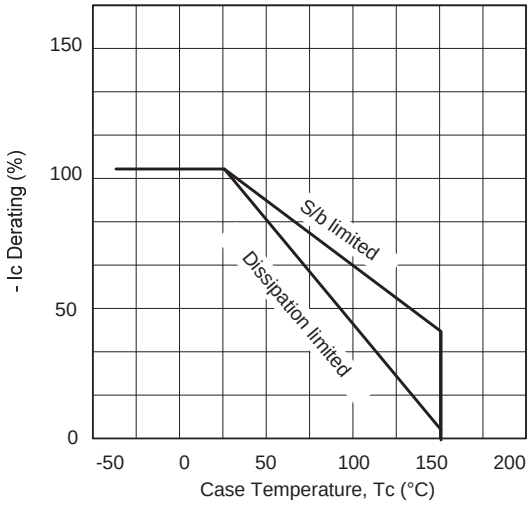
Rank	**Q**	**P**	**E**
Range	**100-200**	**160-320**	**200-400**

TYPICAL TRANSIENT CHARACTERISTICS

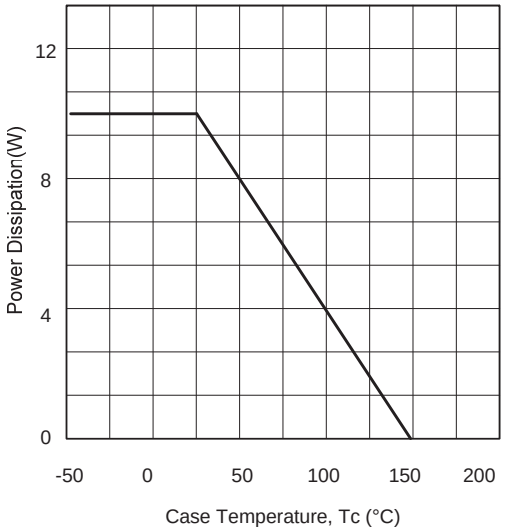
Static Characteristics



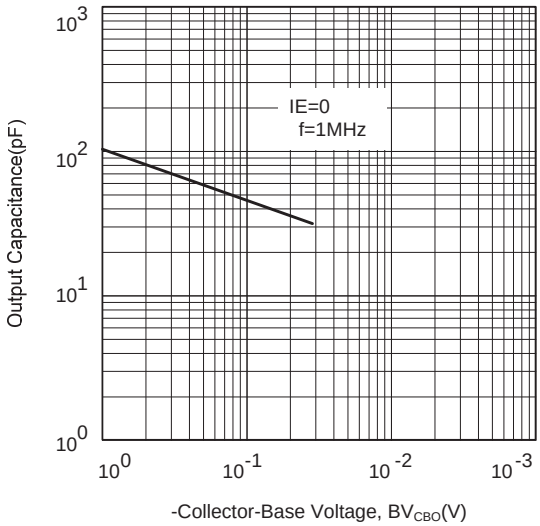
Derating Curve of Safe Operating Areas



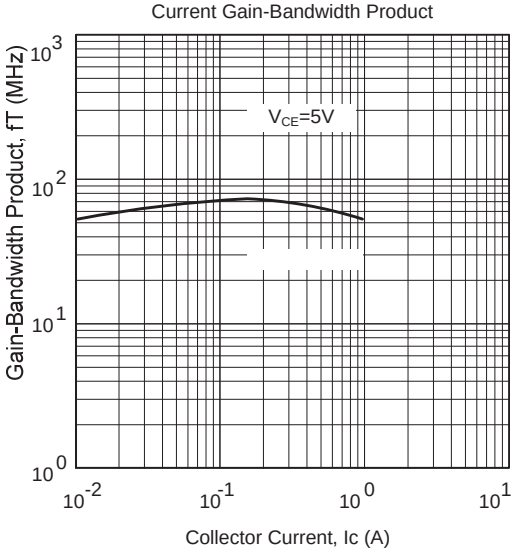
Power Derating



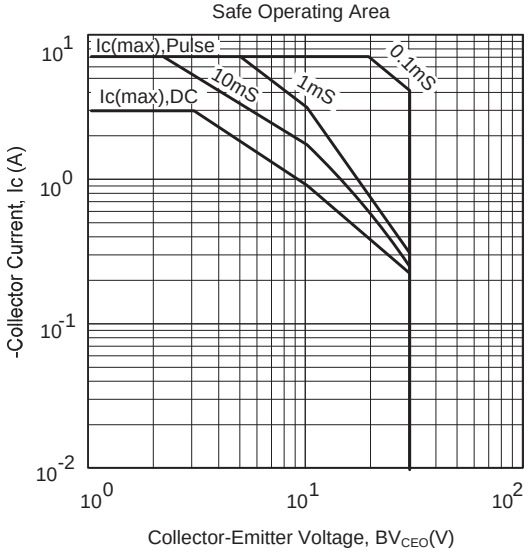
Collector Output Capacitance



Current Gain-Bandwidth Product



Safe Operating Area



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