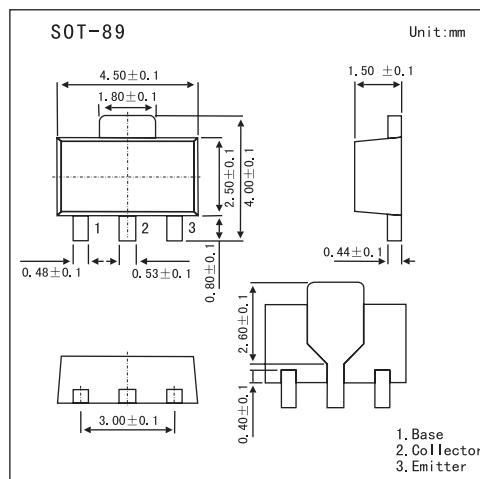


2SA1729

Features

- Adoption of FBET, MBIT Process.
- Large Current Capacity.
- Low Collector-to-Emitter Saturation Voltage.
- High-Speed Switching.
- Small-Sized Package.



Absolute Maximum Ratings Ta = 25°C

Parameter	Symbol	Rating	Unit
Collector-Base Voltage	V _{CB0}	-50	V
Collector-Emitter Voltage	V _{CEO}	-40	V
Emitter-Base Voltage	V _{EBO}	-5	V
Collector Current	I _C	-1.5	A
Collector Current (Pulse)	I _{CP}	-3	A
Collector Dissipation	P _C *	1.3	W
Junction temperature	T _j	150	°C
Storage temperature Range	T _{stg}	-55 to +150	°C

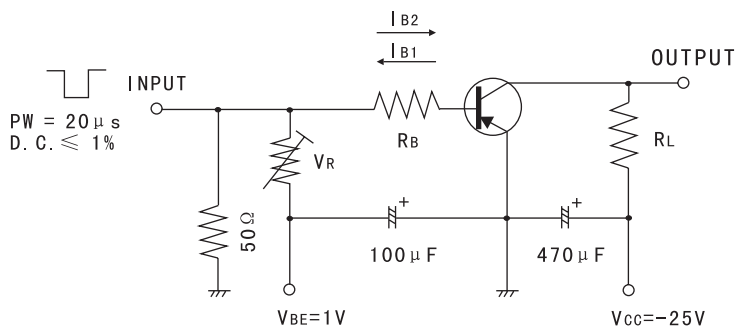
* Mounted on ceramic board (250 mm² x 0.8 mm)

Electrical Characteristics Ta = 25°C

Parameter	Symbol	Testconditions	Min	Typ	Max	Unit
Collector Cut-off Current	I _{CBO}	V _{CB} = -40V , I _E = 0			-1	μA
Emitter Cut-off Current	I _{EBO}	V _{EB} = -3V , I _C = 0			-1	μA
DC Current Gain	h _{FE}	V _{CE} = -2V , I _C = -100mA	70		280	
		V _{CE} = -2V , I _C = -1.5A	25			
Collector-Emitter Saturation Voltage	V _{CE(sat)}	I _C = -800mA , I _B = -40mA		-0.3	-0.8	V
Base-Emitter Saturation Voltage	V _{BE(sat)}	I _C = -800mA , I _B = -40mA		-0.9	-1.3	V
Collector-Base Breakdown Voltage	V _{(BR)CBO}	I _C = -10μA , I _E = 0	-50			V
Collector-Emitter Breakdown Voltage	V _{(BR)CEO}	I _C = -1mA , R _{BE} = ∞	-40			V
Emitter-Base Breakdown Voltage	V _{(BR)EBO}	I _E = -10μA , I _C = 0	-5			V
Gain-Bandwidth Product	f _T	V _{CE} = -2V , I _C = -100mA		300		MHz
Output Capacitance	C _{ob}	V _{CB} = -10V , f = 1MHz		18		pF
Turn-ON Time	t _{on}	See Test Circuit		50	100	ns
Storage Time	t _{stg}			120	220	ns
Turn-OFF Time	t _{off}			150	300	ns

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Test Circuit

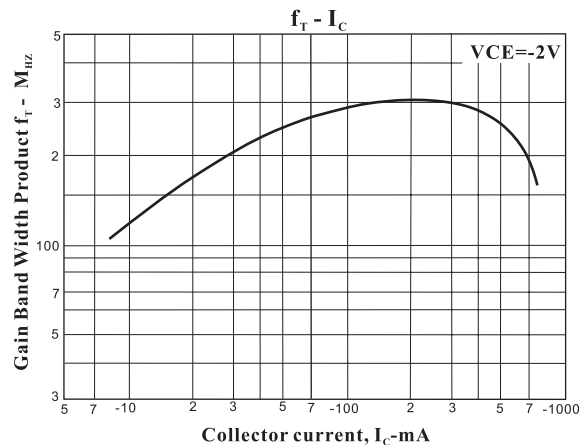
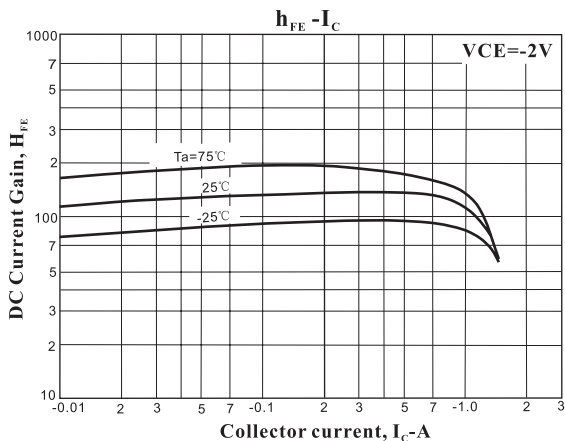
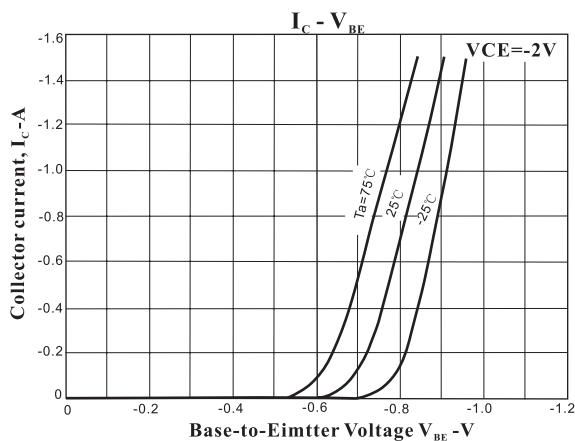
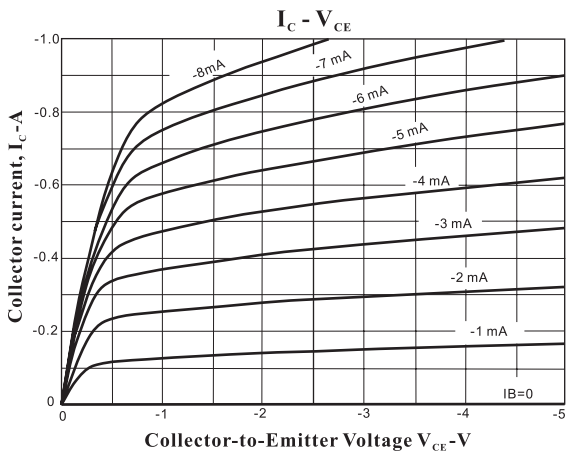


$$20I_{B1} = -20I_{B2} = I_C = -800\text{mA}$$

hFE Classification

Marking	AG		
Rank	Q	R	S
hFE	70 ~ 140	100 ~ 200	140 ~ 280

Electrical Characteristics Curves





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