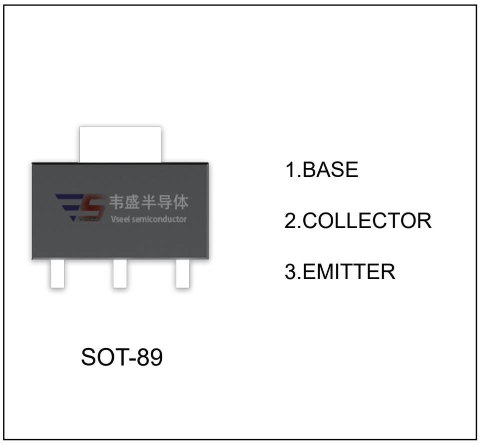
2SA1740 TRANSISTOR (PNP)



FEATURES

- High breadown voltage
- Excellent h_{FE} linearlity

Marking: AK•

MAXIMUM RATINGS (T_a=25℃ unless otherwise noted)

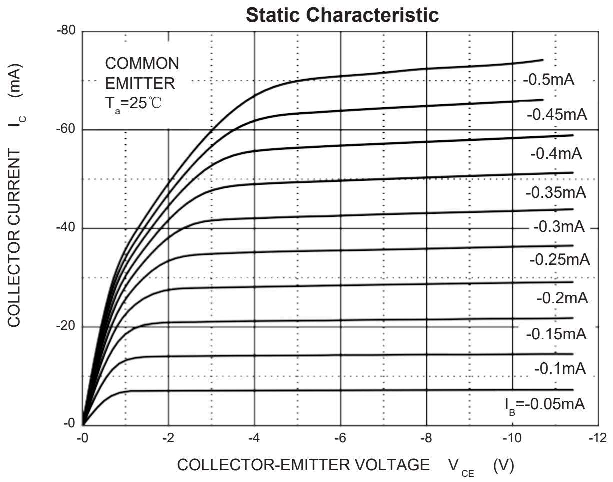
Symbol	Parameter	Value	Unit
V_{CBO}	Collector-Base Voltage	-400	V
V_{CEO}	Collector-Emitter Voltage	-400	V
V_{EBO}	Emitter-Base Voltage	-5	V
I_C	Collector Current -Continuous	-200	mA
P_C	Collector Dissipation	500	mW
T_J,T_{stg}	Operation Junction and Storage Temperature Range	-55~150	℃
$R_{\theta JA}$	Thermal Resistance from Junction to Ambient	250	℃ /W

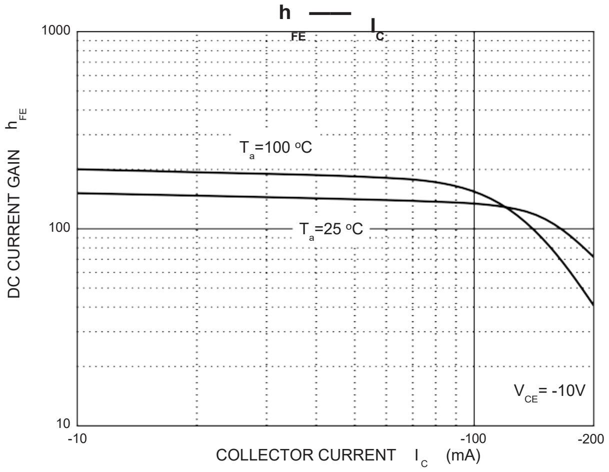
ELECTRICAL CHARACTERISTICS (T_a=25℃ unless otherwise specified)

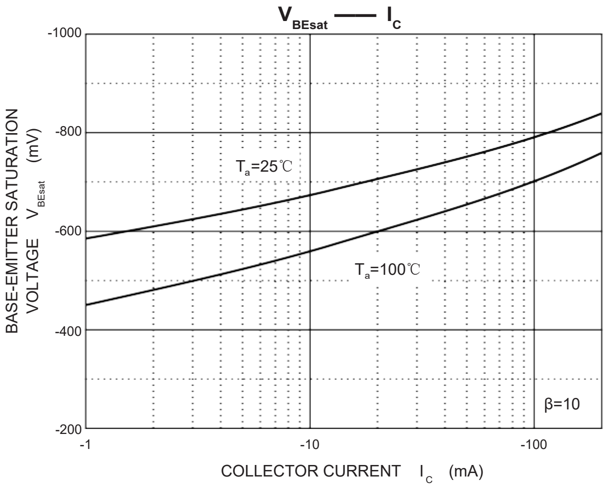
Parameter	Symbol	Test conditions	Min	Typ	Max	Unit
Collector-base breakdown voltage	$V_{(BR)CBO}$	I_C=-10μA,I_E=0	-400			V
Collector-emitter breakdown voltage	$V_{(BR)CEO}$	I_C=-1mA,I_B=0	-400			V
Emitter-base breakdown voltage	$V_{(BR)EBO}$	I_E=-10μA,I_C=0	-5			V
Collector cut-off current	I_{CBO}	V_{CB}=-300V,I_E=0			-100	nA
Emitter cut-off current	I_{EBO}	V_{EB}=-4V,I_C=0			-100	nA
DC current gain	h_{FE}	V_{CE}=-10V,I_C=-50mA	60		200	
Collector-emitter saturation voltage	$V_{CE(sat)}$	I_C=-50mA,I_B=-5mA			-0.6	V
Base-emitter saturation voltage	$V_{BE(sat)}$	I_C=-50mA,I_B=-5mA			-1	V
Transition frequency	f_T	V_{CE}=-30V,I_C=-10mA		70		MHz
Collector output capacitance	C_{ob}	V_{CB}=-30V,I_E=0,f=1MHz		5		pF
Turn-ON Time	t_{on}	V_{CC}=-150V,I_c=-50mA, I_{B1}=-I_{B2}=-5mA		0.25		μs
Turn-OFF Time	t_{off}			5		μs

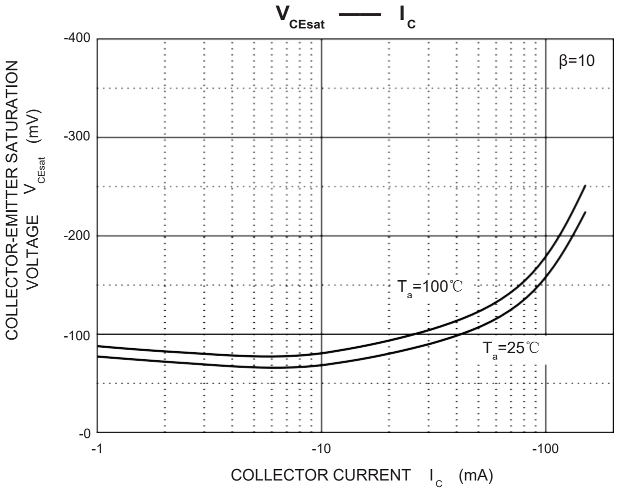
CLASSIFICATION OF h_{FE}

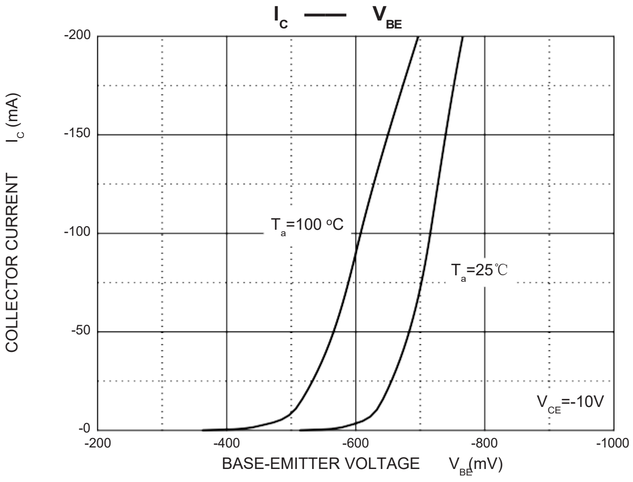
Rank	D	E
Range	60-120	100-200

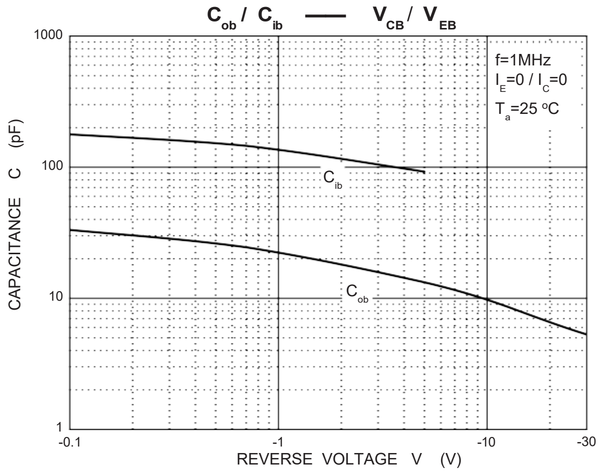

Static Characteristic

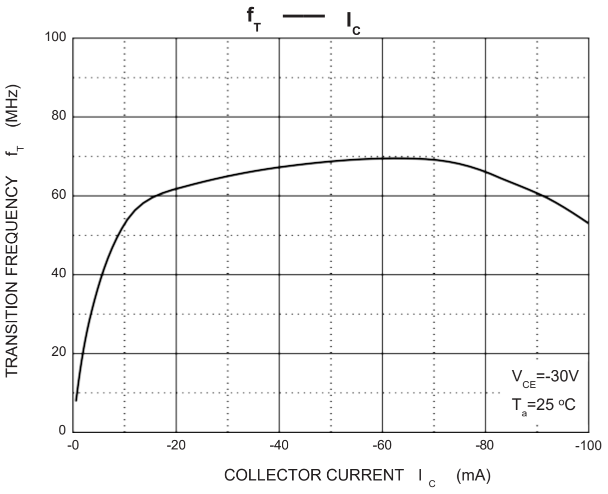

h_{FE} — I_C

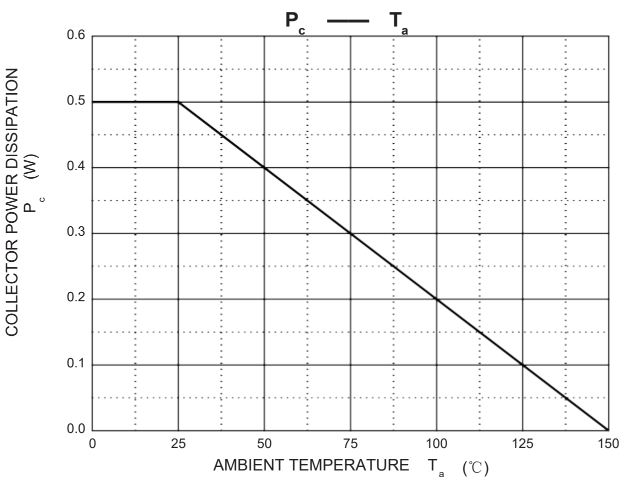

V_{BEsat} — I_C


V_{CEsat} — I_C


I_C — V_{BE}


C_{ob} / C_{ib} — V_{CB} / V_{EB}


f_T — I_C


P_c — T_a