KTC2026 TRANSISTOR (NPN)

TO-220F

1.BASE

2.COLLECTOR

3.EMITTER

FEATURES

- Low Saturation Voltage
- General Purpose Applications

MAXIMUM RATINGS (T_a=25℃ unless otherwise noted)

Symbol	Parameter	Value	Unit
V_{CBO}	Collector-Base Voltage	60	V
V_{CEO}	Collector-Emitter Voltage	60	V
V_{EBO}	Emitter-Base Voltage	7	V
I_C	Collector Current	3	A
P_C	Collector Power Dissipation	2	W
$R_{\theta JA}$	Thermal Resistance From Junction To Ambient	63	℃/W
T_J,T_{stg}	Operation Junction and Storage Temperature Range	-55~+150	℃

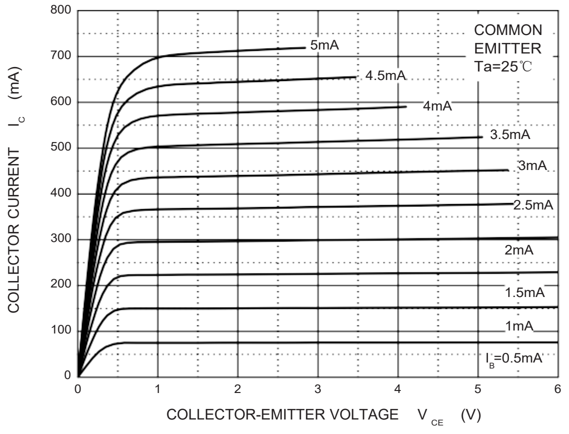
ELECTRICAL CHARACTERISTICS (T_a=25℃ unless otherwise specified)

Parameter	Symbol	Test conditions	Min	Typ	Max	Unit
Collector-base breakdown voltage	$V_{(BR)CBO}$	I_C=100μA,I_E=0	60			V
Collector-emitter breakdown voltage	$V_{(BR)CEO}$	I_C=50mA,I_B=0	60			V
Emitter-base breakdown voltage	$V_{(BR)EBO}$	I_E=100μA,I_C=0	7			V
Collector cut-off current	I_{CBO}	V_{CB}=60V,I_E=0			100	μA
Emitter cut-off current	I_{EBO}	V_{EB}=7V,I_C=0			100	μA
DC current gain	h_{FE}	V_{CE}=5V, I_C=0.5A	100		300	
Collector-emitter saturation voltage	$V_{CE(sat)}$	I_C=2A,I_B=0.2A			1	V
Base-emitter voltage	V_{BE}	V_{CE}=5V, I_C=0.5A			1	V
Collector output capacitance	C_{ob}	V_{CB}=10V,I_E=0, f=1MHz		35		pF
Transition frequency	f_T	V_{CE}=5V,I_C=0.5A		30		MHz

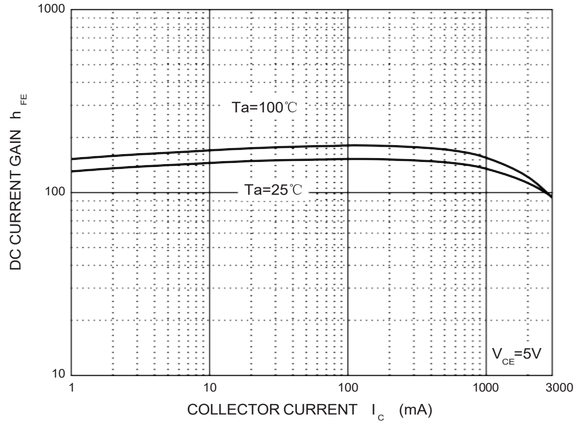
CLASSIFICATION OF h_{FE}

RANK	Y	GR
RANGE	100-200	150-300

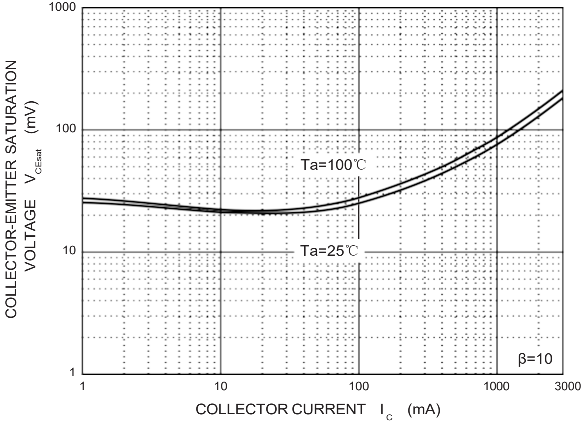
Static Characteristic



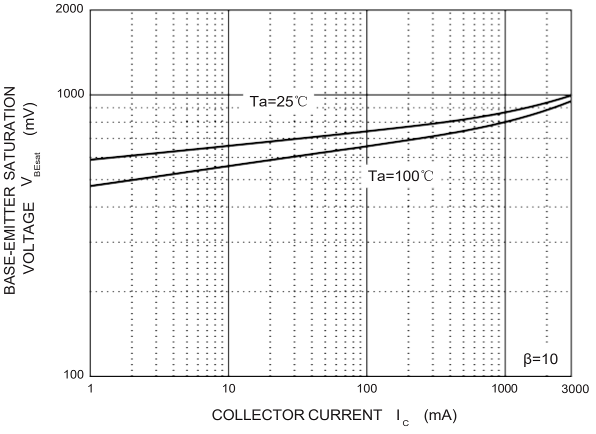
h_{FE} —— I_C



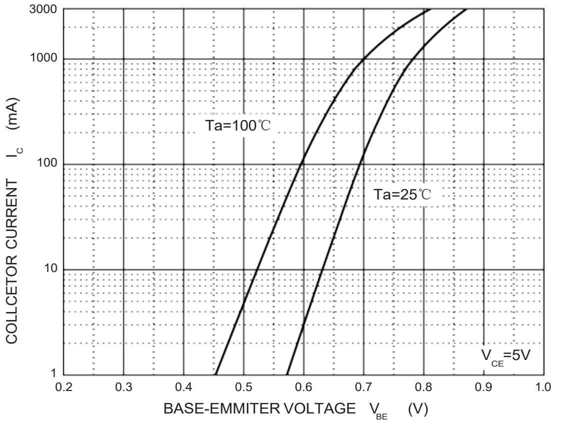
V_{CEsat} —— I_C



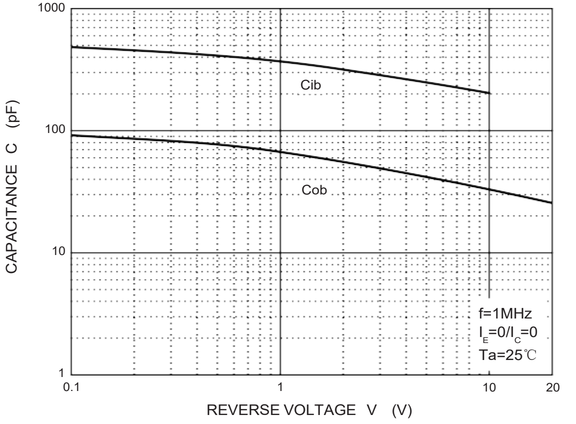
V_{BEsat} —— I_C



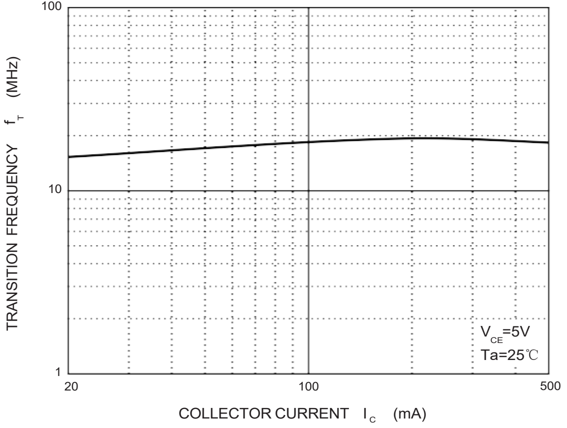
V_{BE} —— I_C



C_{ob}/ C_{ib} —— V_{CB}/ V_{EB}



f_T —— I_C



P_C —— T_a