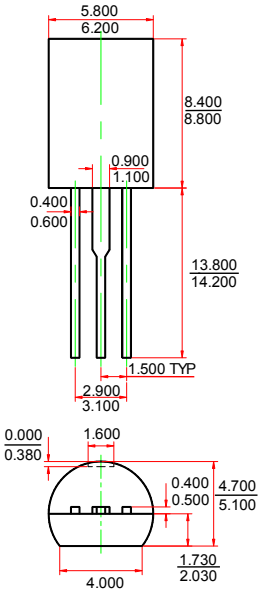
KTA1281

TO-92MOD Transistor (PNP)

RoHS COMPLIANT

1. EMITTER
2. COLLECTOR
3. BASE

TO-92MOD



Dimensions in inches and (millimeters)

Features

- ✧ Low Collector Saturation Voltage: $V_{CE(sat)}$=-0.5V(Max.)(I_C=-1A)
- ✧ High Speed Switching time: t_{stg}=1.0 μ S(Typ.).
- ✧ Complementary to KTC3209.

MAXIMUM RATINGS (T_A=25℃ unless otherwise noted)

Symbol	Parameter	Value	Units
V_{CBO}	Collector-Base Voltage	-50	V
V_{CEO}	Collector-Emitter Voltage	-50	V
V_{EBO}	Emitter-Base Voltage	-5	V
I_C	Collector Current -Continuous	-2	A
P_C	Collector Power Dissipation	1	W
T_J	Junction Temperature	150	℃
T_{stg}	Storage Temperature	-55-150	℃

ELECTRICAL CHARACTERISTICS (Tamb=25℃ unless otherwise specified)

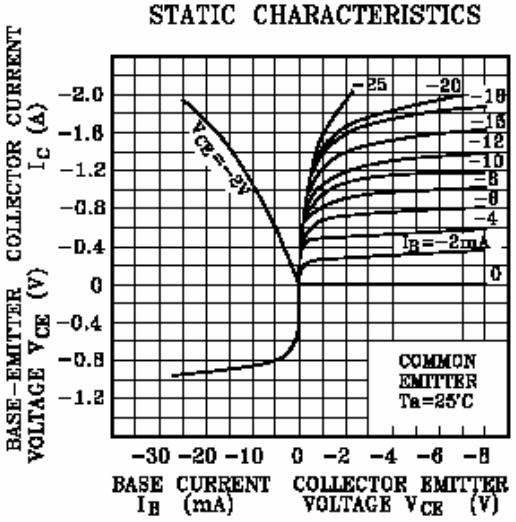
Parameter	Symbol	Test conditions	MIN	TYP	MAX	UNIT
Collector-base breakdown voltage	$V_{(BR)CBO}$	I_C= -100 uA, I_E=0	-50			V
Collector-emitter breakdown voltage	$V_{(BR)CEO}$	I_C= -10mA, I_B=0	-50			V
Emitter-base breakdown voltage	$V_{(BR)EBO}$	I_E= -100 μ A, I_C=0	-5			V
Collector cut-off current	I_{CBO}	V_{CB}= -50 V , I_E=0			-0.1	μ A
Emitter cut-off current	I_{EBO}	V_{EB}= -5V , I_C=0			-0.1	μ A
DC current gain	$h_{FE(1)}$	V_{CE}= -2V, I_C= -0.5A	70		240	
	$h_{FE(2)}$	V_{CE}= -2V, I_C= -1.5A	40			
Collector-emitter saturation voltage	V_{CE}(sat)	I_C=-1A, I_B= -0.05A			-0.5	V
Base-emitter saturation voltage	V_{BE}(sat)	I_C=-1A, I_B= -0.05A			-1.2	V
Transition frequency	f_T	V_{CE}=-2V, I_C=-0.5A		100		MHz
Out capacitance	C_{ob}	V_{CB}= -10 V , I_E=0 , f=1MHz		40		pF
Turn-on time	t_{on}	V_{CC}=-30V,I_{B1}=-I_{B2}=-0.05A, I_C=-1A		0.1		us
Storage time	t_s			1		us
Fall time	t_f			0.1		us

CLASSIFICATION OF $h_{FE(1)}$

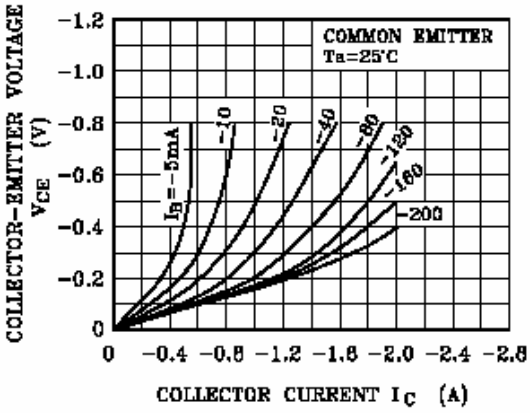
Rank	O	Y
Range	70-140	120 - 140

Typical Characteristics

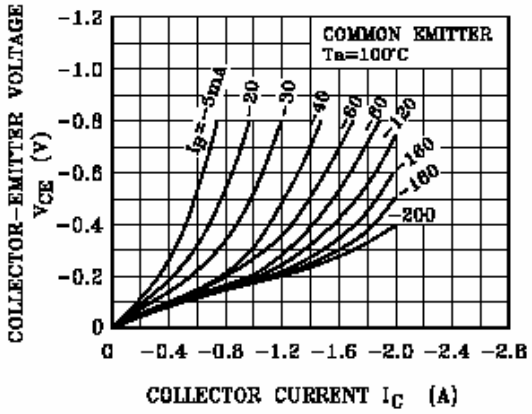
STATIC CHARACTERISTICS



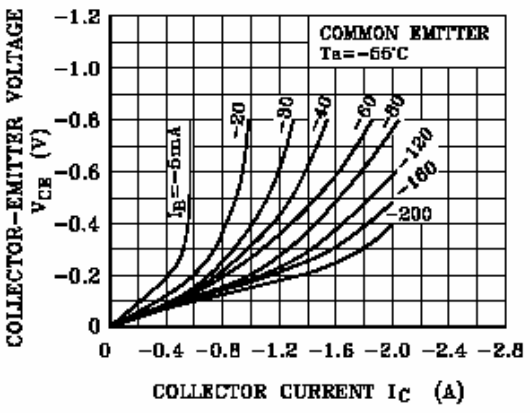
V_{CE} – I_C



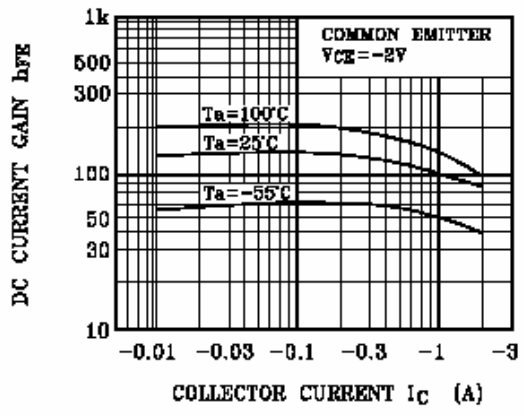
V_{CE} – I_C



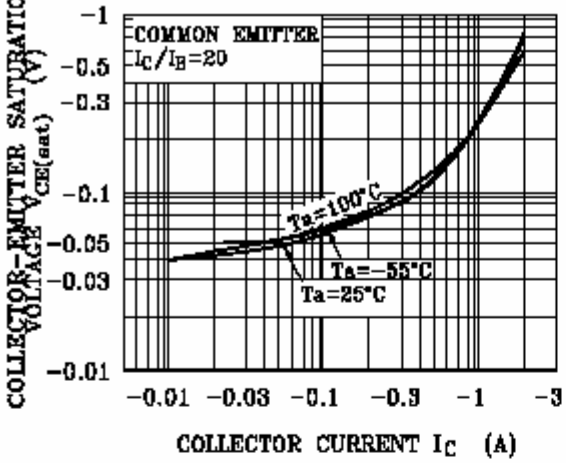
V_{CE} – I_C



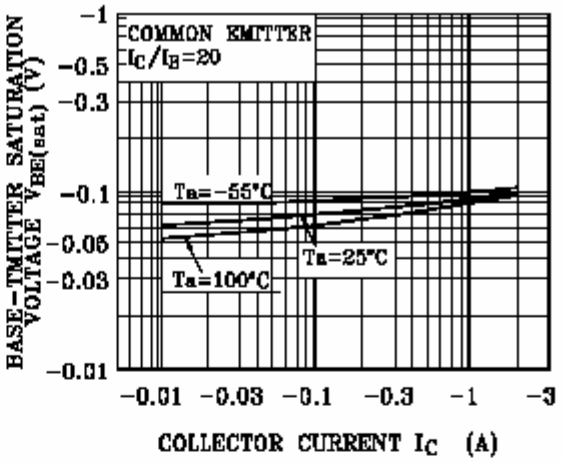
h_{FE} – I_C



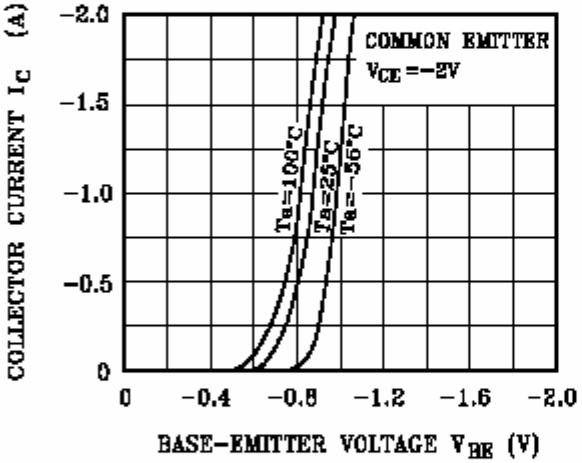
$V_{CE(sat)}$ – I_C



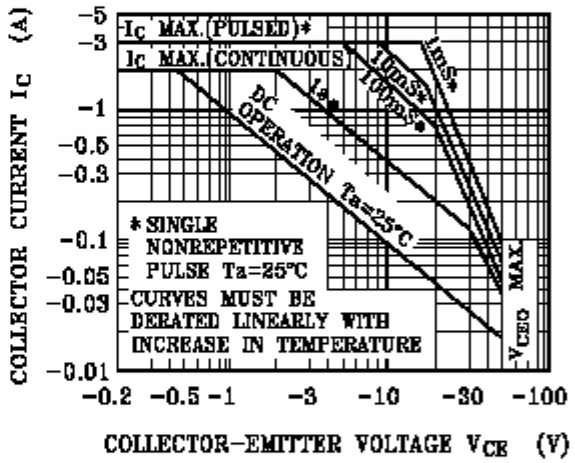
$V_{BE(sat)}$ – I_C



I_C – V_{BE}



SAFE OPERATING AREA



P_C – Ta