

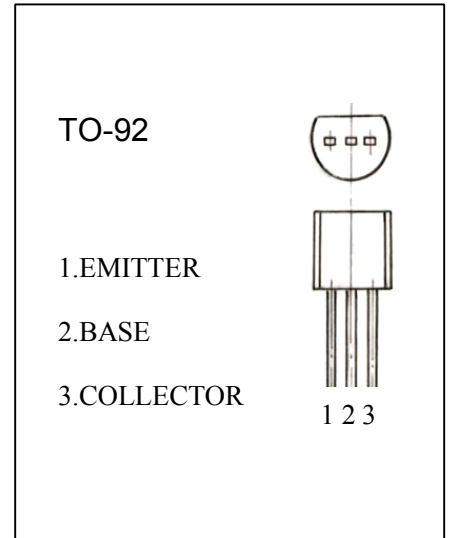
TO-92 Plastic-Encapsulate Transistors

FEATURE

- ◆ Excellent hFE linearity
- ◆ Low noise
- ◆ Complementary to A733

MAXIMUM RATINGS (TA=25°C unless otherwise noted)

Symbol	Parameter	Value	Units
VCBO	Collector-Base Voltage	60	V
VCEO	Collector-Emitter Voltage	50	V
VEBO	Emitter-Base Voltage	5	V
IC	Collector Current -Continuous	150	mA
PC	Collector Power Dissipation	400	mW
TJ	Junction Temperature	125	°C
Tstg	Storage Temperature	-55-125	°C



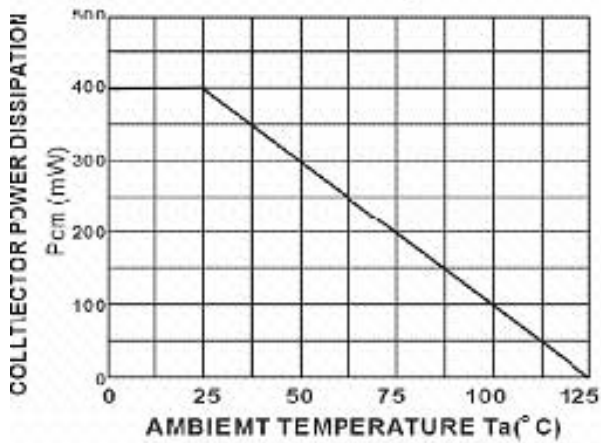
ELECTRICAL CHARACTERISTICS (Tamb=25°C unless otherwise specified)

Parameter	Symbol	Test conditions	MIN	TYP	MAX	UNIT
Collector-base breakdown voltage	$V_{(BR)CBO}$	$I_c=1mA, I_E=0$	60			V
Collector-emitter breakdown voltage	$V_{(BR)CEO}$	$I_c=100\mu A, I_B=0$	50			V
Emitter-base breakdown voltage	$V_{(BR)EBO}$	$I_E=100mA, I_c=0$	5			V
Collector cut-off current	I_{CBO}	$V_{CB}=60V, I_E=0$			0.1	μA
Collector cut-off current	I_{CEO}	$V_{CE}=45V$			0.1	μA
Emitter cut-off current	I_{EBO}	$V_{EB}=5V, I_c=0$			0.1	μA
DC current gain	$h_{FE(1)}$	$V_{CE}=6V, I_c=1mA$	70		700	
	$h_{FE(2)}$	$V_{CE}=6V, I_c=0.1mA$	40			
Collector-emitter saturation voltage	$V_{CE(sat)}$	$I_c=100mA, I_B=10mA$			0.3	V
Base-emitter saturation voltage	$V_{BE(sat)}$	$I_c=100mA, I_B=10mA$			1	V
Transition frequency	f_T	$V_{CE}=6V, I_c=10mA, f=30MHz$	200			MHz
Collector output capacitance	C_{ob}	$V_{CB}=10V, I_E=0, f=1MHz$			3.0	pF
Noise figure	NF	$V_{CE}=6V, I_c=0.1mA, R_G=10k\Omega, f=1kHz$			10	dB

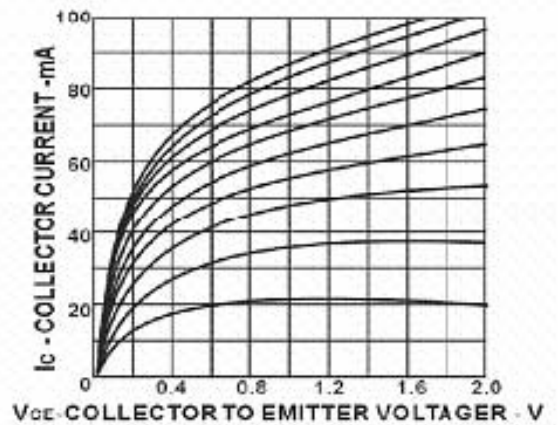
CLASSIFICATION OF hFE(1)

Rank	O	Y	GR	BL
Range	70-140	120-240	200-400	350-700

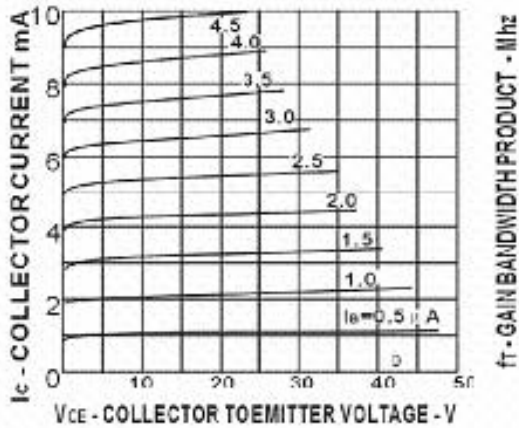
TOTAL Power Dissipation vs AMBIENT Temperature



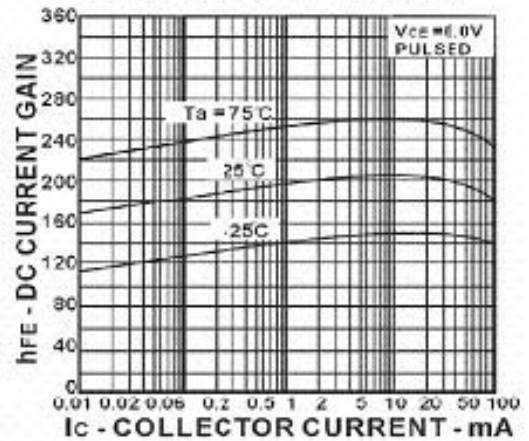
COLLECTOR CURRENT vs. COLLECTOR TO EMITTER VOLTAGE



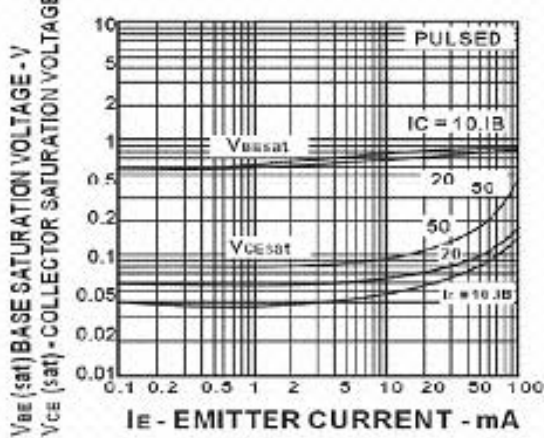
COLLECTOR CURRENT vs. COLLECTOR TO EMITTER VOLTAGE



DC CURRENT GAIN vs. COLLECTOR CURRENT



COLLECTOR AND BASE SATURATION VOLTAGE vs. COLLECTOR CURRENT



DC CURRENT GAIN vs. COLLECTOR CURRENT

