

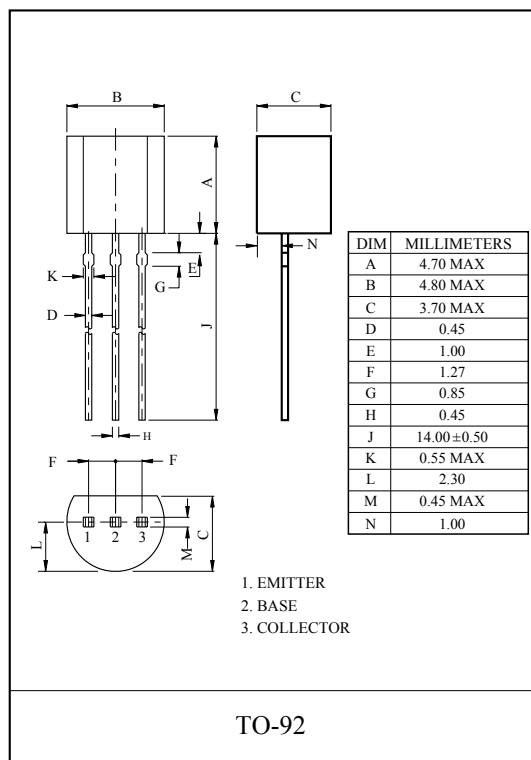
HIGH VOLTAGE APPLICATION.
TELEPHONE APPLICATION.

FEATURES

- Complementary to MPSA92/93.

MAXIMUM RATING (Ta=25°C)

CHARACTERISTIC		SYMBOL	RATING	UNIT
Collector-Base Voltage	MPSA42	V_{CBO}	300	V
	MPSA43		200	
Collector-Emitter Voltage	MPSA42	V_{CEO}	300	V
	MPSA43		200	
Emitter-Base Voltage		V_{EBO}	6.0	V
Collector Current		I_C	500	mA
Emitter Current		I_E	-500	mA
Collector Power Dissipation		P_C	625	mW
Junction Temperature		T_j	150	°C
Storage Temperature Range		T_{stg}	-55 ~ 150	°C



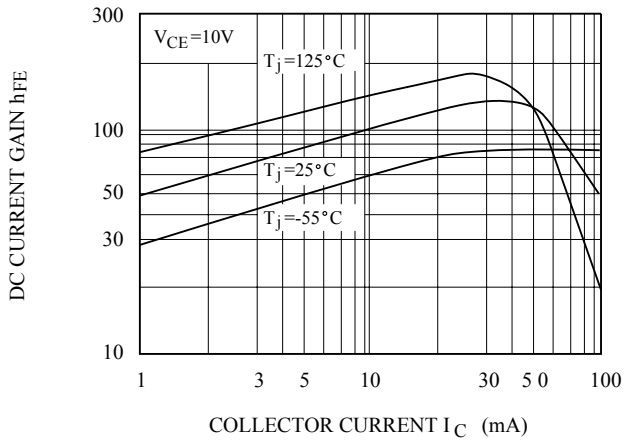
ELECTRICAL CHARACTERISTICS (Ta=25°C)

CHARACTERISTIC		SYMBOL	TEST CONDITION	MIN.	TYP.	MAX.	UNIT
Collector-Base Breakdown Voltage	MPSA42	V _{(BR)CBO}	I _C =100μA, I _E =0	300	-	-	V
	MPSA43			200	-	-	
Collector-Emitter Breakdown Voltage	MPSA42	V _{(BR)CEO}	I _C =1.0mA, I _B =0	300	-	-	V
	MPSA43			200	-	-	
Collector Cut-off Current	MPSA42	I _{CBO}	V _{CB} =200V, I _E =0	-	-	0.1	μA
	MPSA43		V _{CB} =160V, I _E =0	-	-	0.1	
Emitter Cut-off Current	MPSA42	I _{EBO}	V _{EB} =6V, I _C =0	-	-	0.1	μA
	MPSA43		V _{EB} =4V, I _C =0	-	-	0.1	
DC Current Gain		* h _{FE}	I _C =1.0mA, V _{CE} =10V	40	-	-	
			I _C =10mA, V _{CE} =10V	40	-	-	
			I _C =30mA, V _{CE} =10V	40	-	-	
Collector-Emitter Saturation Voltage		* V _{CE(sat)}	I _C =20mA, I _B =2.0mA	-	-	0.5	V
Base-Emitter Saturation Voltage		* V _{BE(sat)}	I _C =20mA, I _B =2.0mA	-	-	0.9	V
Transition Frequency		f _T	V _{CE} =20V, I _C =10mA, f=100MHz	50	-	-	MHz
Collector Output Capacitance	MPSA42	C _{ob}	V _{CB} =20V, I _E =0, f=1MHz	-	-	3.0	pF
	MPSA43			-	-	4.0	

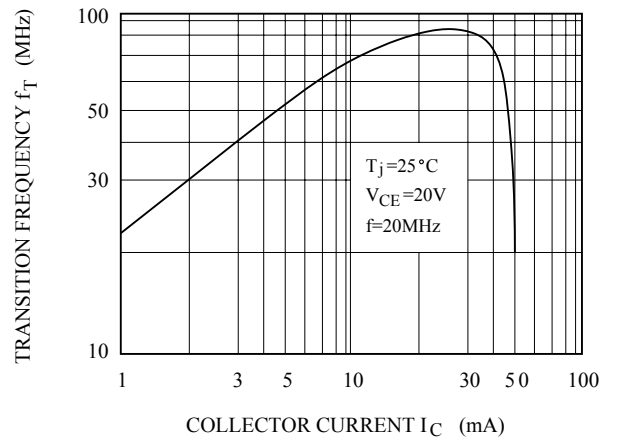
*Pulse Test : Pulse Width $\leq 300\mu s$, Duty Cycle $\leq 2.0\%$

MPSA42/43

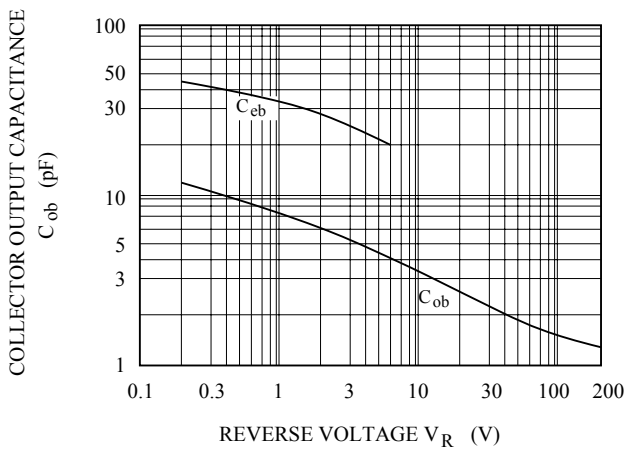
$h_{FE} - I_C$



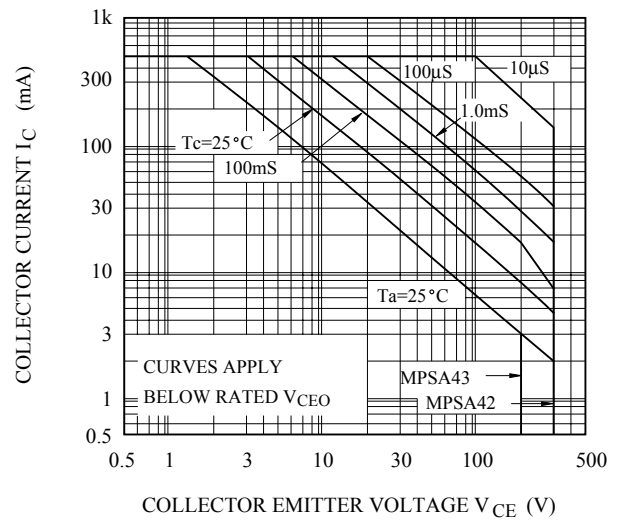
$f_T - I_C$



$C_{ob} - V_R$



$I_C - V_{CE}$



$V_{BE(sat)}, V_{CE(sat)} - I_C$

