

HIGH CURRENT APPLICATION.

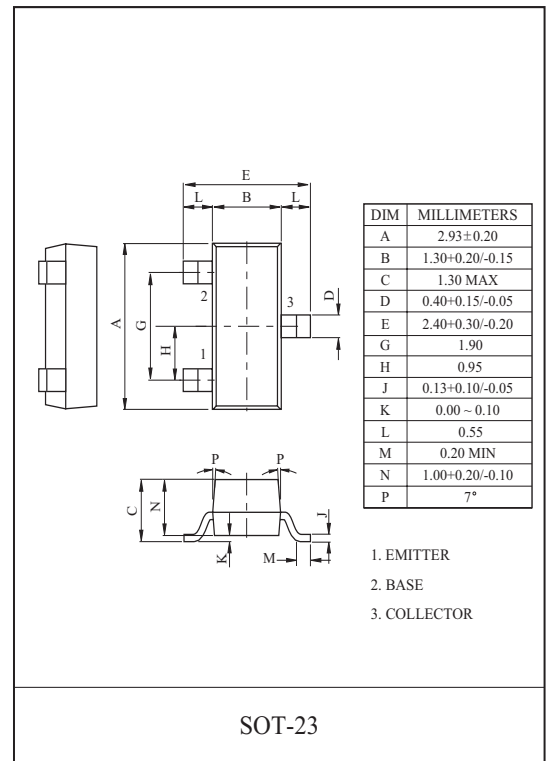
FEATURE

- Complementary to MPS8050S.
- Suffix U : Qualified to AEC-Q101.
ex) MPS550S-C-RTK/U

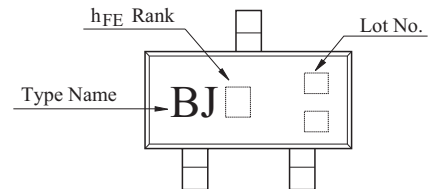
MAXIMUM RATING (Ta=25)

CHARACTERISTIC	SYMBOL	RATING	UNIT
Collector-Base Voltage	V_{CB0}	-40	V
Collector-Emitter Voltage	V_{CEO}	-25	V
Emitter-Base Voltage	V_{EBO}	-6	V
Collector Current	I_C	-1.5	A
Collector Power Dissipation	P_C^*	350	mW
Junction Temperature	T_j	150	
Storage Temperature Range	T_{stg}	-55 150	

* P_C : Package Mounted On 99.5% Alumina (10 × 8 × 0.6mm)



Marking



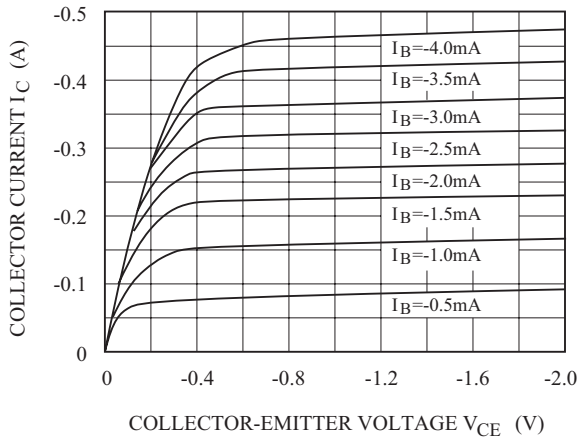
ELECTRICAL CHARACTERISTICS (Ta=25)

CHARACTERISTIC	SYMBOL	TEST CONDITION	MIN.	TYP.	MAX.	UNIT
Collector Cut-off Current	I_{CBO}	$V_{CB}=-35V, I_E=0$	-	-	-100	nA
Emitter Cut-off Current	I_{EBO}	$V_{EB}=-6V, I_C=0$	-	-	-100	nA
Collector-Base Breakdown Voltage	$V_{(BR)CBO}$	$I_C=-100\mu A, I_E=0$	-40	-	-	V
Collector-Emitter Breakdown Voltage	$V_{(BR)CEO}$	$I_C=-2mA, I_B=0$	-25	-	-	V
DC Current Gain	$h_{FE(1)}$	$V_{CE}=-1V, I_C=-5mA$	45	170	-	
	$h_{FE(2)}$ (Note)	$V_{CE}=-1V, I_C=-100mA$	85	160	300	
	$h_{FE(3)}$	$V_{CE}=-1V, I_C=-800mA$	40	80	-	
Collector-Emitter Saturation Voltage	$V_{CE(sat)}$	$I_C=-800mA, I_B=-80mA$	-	-0.28	-0.5	V
Base-Emitter Saturation Voltage	$V_{BE(sat)}$	$I_C=-800mA, I_B=-80mA$	-	-0.98	-1.2	V
Base-Emitter Voltage	V_{BE}	$V_{CE}=-1V, I_C=-10mA$	-	-0.66	-1.0	V
Transition Frequency	f_T	$V_{CE}=-10V, I_C=-50mA$	100	200	-	MHz
Collector Output Capacitance	C_{ob}	$V_{CB}=-10V, f=1MHz, I_E=0$	-	15	-	pF

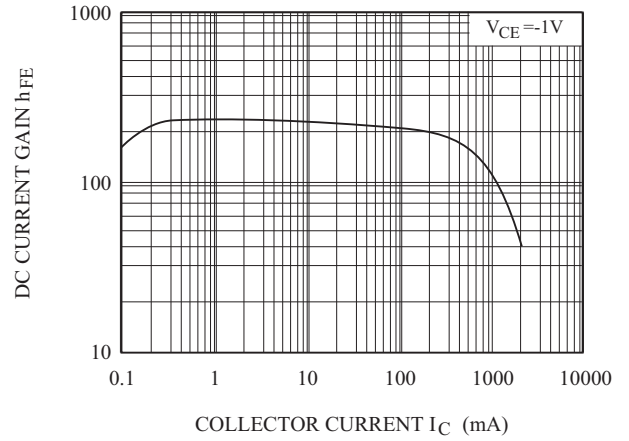
Note : $h_{FE(2)}$ Classification B:85 160 , C : 120 200 , D : 160 300

MPS8550S

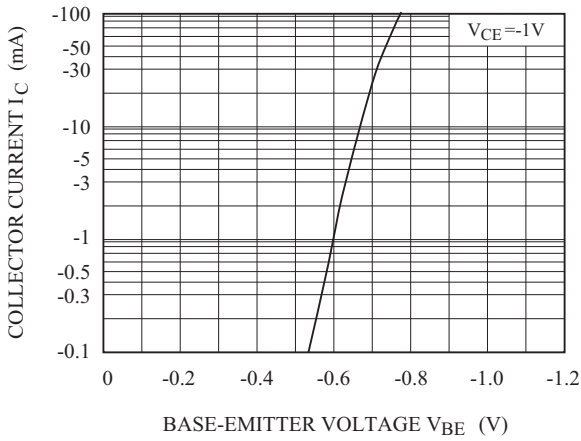
$I_C - V_{CE}$



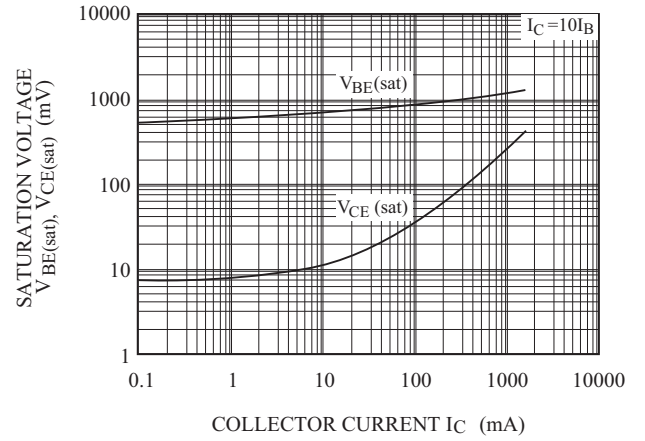
$h_{FE} - I_C$



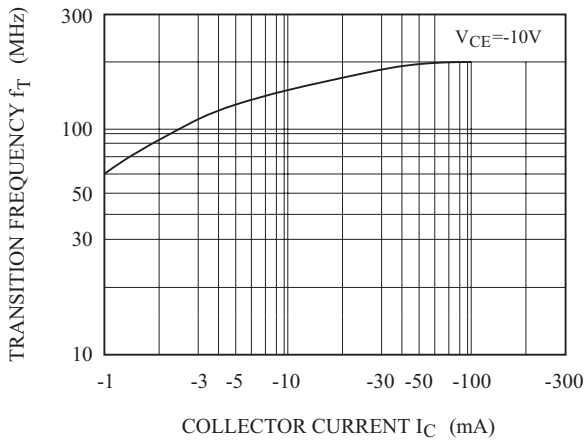
$I_C - V_{BE}$



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



$f_T - I_C$



$C_{ob} - V_{CB}$

