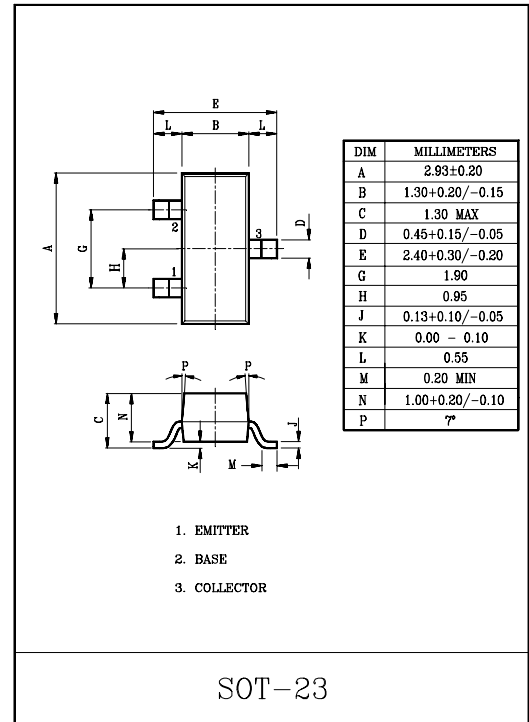


HIGH VOLTAGE APPLICATION.  
TELEPHONE APPLICATION.

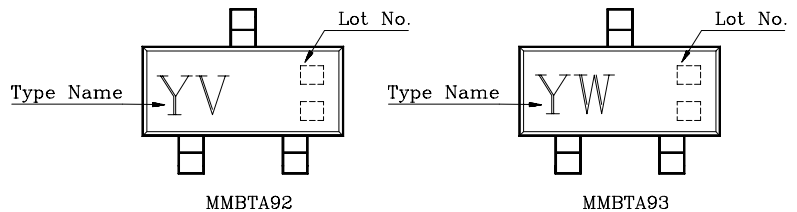
### MAXIMUM RATINGS (Ta=25°C)

CHARACTERISTIC		SYMBOL	RATING	UNIT
Collector-Base Voltage	MMBTA92	V <sub>CBO</sub>	-300	V
	MMBTA93		-200	
Collector-Emitter Voltage	MMBTA92	V <sub>CEO</sub>	-300	V
	MMBTA93		-200	
Emitter-Base Voltage		V <sub>EBO</sub>	-5.0	V
Collector Current		I <sub>C</sub>	-500	mA
Emitter Current		I <sub>E</sub>	500	mA
Collector Power Dissipation		P <sub>C</sub> *	350	mW
Junction Temperature		T <sub>j</sub>	150	°C
Storage Temperature		T <sub>stg</sub>	-55~150	°C

P<sub>C</sub> \* : Package mounted on 99.5% alumina 10×8×0.6mm.



### Marking



### ELECTRICAL CHARACTERISTICS (Ta=25°C)

CHARACTERISTIC		SYMBOL	TEST CONDITION	MIN.	TYP.	MAX.	UNIT
Collector-Base Breakdown Voltage	MMBTA92	V <sub>(BR)CBO</sub>	I <sub>C</sub> =-100μA, I <sub>E</sub> =0	-300	-	-	V
	MMBTA93			-200	-	-	
Collector-Emitter Breakdown Voltage	MMBTA92	V <sub>(BE)CEO</sub>	I <sub>C</sub> =-1.0mA, I <sub>B</sub> =0	-300	-	-	V
	MMBTA93			-200	-	-	
DC Current Gain		* h <sub>FE</sub>	I <sub>C</sub> =-1.0mA, V <sub>CE</sub> =-10V	25	-	-	
			I <sub>C</sub> =-10mA, V <sub>CE</sub> =-10V	40	-	-	
			I <sub>C</sub> =-30mA, V <sub>CE</sub> =-10V	25	-	-	
Collector-Emitter Saturation Voltage		* V <sub>CE(sat)</sub>	I <sub>C</sub> =-20mA, I <sub>B</sub> =-2.0mA	-	-	-0.5	V
Base-Emitter Saturation Voltage		* V <sub>BE(sat)</sub>	I <sub>C</sub> =-20mA, I <sub>B</sub> =-2.0mA	-	-	-0.9	V
Transition Frequency		f <sub>T</sub>	V <sub>CE</sub> =-20V, I <sub>C</sub> =-10mA, f=100MHz	50	-	-	MHz
Collector Output Capacitance	MMBTA92	C <sub>ob</sub>	V <sub>CB</sub> =-20V, I <sub>E</sub> =0, f=1MHz	-	-	6.0	pF
	MMBTA93			-	-	8.0	

\*Pulse Test : Pulse Width ≤ 300μs, Duty Cycle ≤ 2.0%

# MMBTA92/93

