

HIGH VOLTAGE APPLICATION.
TELEPHONE APPLICATION.

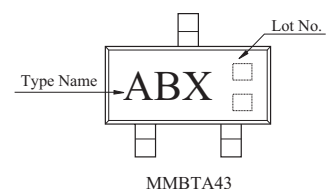
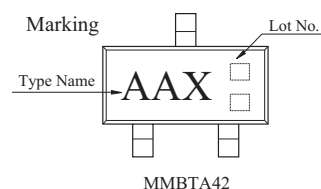
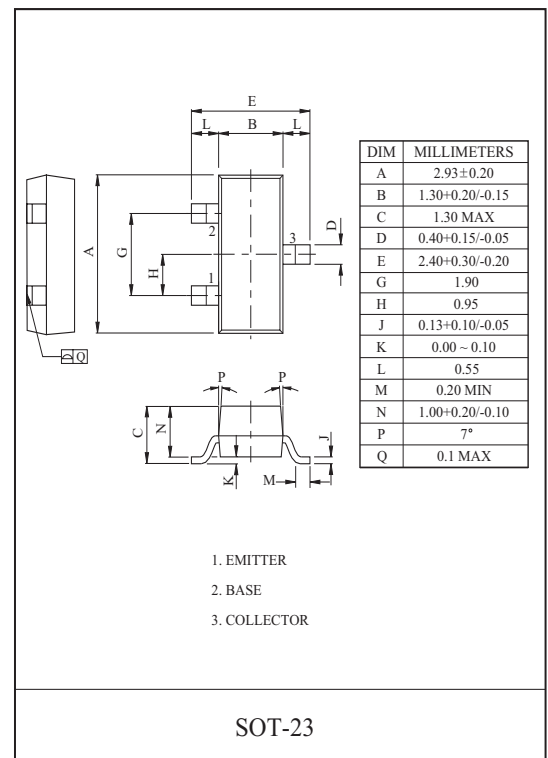
FEATURES

- Complementary to MMBTA92/93.
- Suffix U : Qualified to AEC-Q101.
ex) MMBTA42-RTK/PU

MAXIMUM RATING (Ta=25 °C)

CHARACTERISTIC		SYMBOL	RATING	UNIT
Collector-Base Voltage	MMBTA42	V_{CBO}	300	V
	MMBTA43		200	
Collector-Emitter Voltage	MMBTA42	V_{CEO}	300	V
	MMBTA43		200	
Emitter-Base Voltage		V_{EBO}	5.0	V
Collector Current		I_C	500	mA
Emitter Current		I_E	-500	mA
Collector Power Dissipation		P_C *	350	mW
Junction Temperature		T_j	150	
Storage Temperature		T_{stg}	-55 ~ 150	

* : Package Mounted On 99.5% Alumina $10 \times 8 \times 0.6$ mm.



ELECTRICAL CHARACTERISTICS (Ta=25 °C)

CHARACTERISTIC		SYMBOL	TEST CONDITION	MIN.	TYP.	MAX.	UNIT
Collector-Base Breakdown Voltage	MMBTA42	$V_{(BR)CBO}$	$I_C=100\text{ }\mu\text{A}$, $I_E=0$	300	-	-	V
	MMBTA43			200	-	-	
Collector-Emitter Breakdown Voltage	MMBTA42	$V_{(BE)CEO}$	$I_C=1.0\text{mA}$, $I_B=0$	300	-	-	V
	MMBTA43			200	-	-	
DC Current Gain		* h_{FE}	$I_C=1.0\text{mA}$, $V_{CE}=10\text{V}$	40	-	-	
			$I_C=10\text{mA}$, $V_{CE}=10\text{V}$	40	-	-	
			$I_C=30\text{mA}$, $V_{CE}=10\text{V}$	40	-	-	
Collector-Emitter Saturation Voltage		$V_{CE(sat)}$	$I_C=20\text{mA}$, $I_B=2.0\text{mA}$	-	-	0.5	V
Base-Emitter Saturation Voltage		$V_{BE(sat)}$	$I_C=20\text{mA}$, $I_B=2.0\text{mA}$	-	-	0.9	V
Transition Frequency		f_T	$V_{CE}=20\text{V}$, $I_C=10\text{mA}$, $f=100\text{MHz}$	50	-	-	MHz
Collector Output Capacitance	MMBTA42	C_{ob}	$V_{CB}=20\text{V}$, $I_E=0$, $f=1\text{MHz}$	-	-	3.0	pF
	MMBTA43			-	-	4.0	

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

MMBTA42/43

