WEJ®

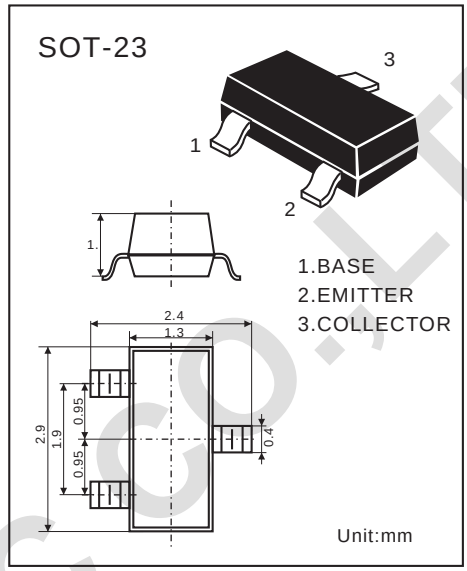
RoHS

MMBT8050LT1

NPN EPITAXIAL SILICON TRANSISTOR

2W OUTPUT AMPLIFIER OF PORTABLE RADIOS IN CLASS B PUSH-PULL OPERATION

- Complement to MMPT8550LT1
- Collector Current:Ic=500mA
- Collector Dissipation:Pc=225mW(Tc=25°C)



ABSOLUTE MAXIMUM RATINGS (Ta=25°C)

Characteristic	Symbol	Rating	Unit
Collector-Base Voltage	V_{CBO}	40	V
Collector-Emitter Voltage	V_{CEO}	25	V
Emitter-Base Voltage	V_{EBO}	6	V
Collector Current	Ic	500	mA
Collector Dissipation Ta=25°C*	P_D	225	mW
Junction Temperature	T_j	150	°C
Storage Temperature	Tstg	-55-150	°C

Electrical Characteristics (Ta=25°C)

Characteristic	Symbol	MIN.	TYP.	MAX.	Unit	Test Conditions
Collector-Base Breakdown Voltage	BV_{CBO}	40			V	I_C=100uA I_E=0
Collector-Emitter Breakdown Voltage#	BV_{CEO}	25			V	I_C=1mA I_B=0
Emitter-Base Breakdown Voltage	BV_{EBO}	6			V	I_E=100uA I_C=0
Collector Cutoff Current	I_{CBO}			100	nA	V_{CB}=35V, I_E=0
Emitter Cutoff Current	I_{EBO}			100	nA	V_{EB}=6V, I_C=0
DC Current Gain	h_{FE1}	45				V_{CE}=1V, I_C=5mA
DC Current Gain	h_{FE2}	85	160	300		V_{CE}=1V, I_C=50mA
DC Current Gain	h_{FE3}	30				V_{CE}=1V, I_C=500mA
Collector-Emitter Saturation Voltage	$V_{CE(sat)}$		0.28	0.5	V	I_C=500mA, I_B=50mA
Base-Emitter Saturation Voltage	$V_{BE(sat)}$		0.98	1.2	V	I_C=500mA, I_B=50mA
Base-Emitter Voltage	V_{BE}		0.66	1	V	I_{CE}=1V, I_C=10mA
Output Capacitance	C_{ob}		9		PF	V_{CB}=10V, I_E=0,f=1MHz
Current Gain-Bandwidth Product	f_T	100	190		MHz	V_{CE}=10V, I_C=50mA

*Total Device Dissipation:FR=1X0.75X0.062 in Board ,Derate 25°C

#Pulse Test: Pulse Width≦300uS ,Duty cycle ≦ 2%

MMBT8050LT1=A6

Typical Characteristics