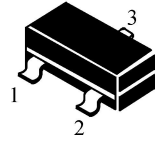


## MMBTA42/MMBTA43

SOT-23

- 1. BASE
- 2. EMITTER
- 3. COLLECTOR



### ■ MAXIMUM RATINGS 最大額定值

Characteristic 特性參數	Symbol 符號	GMA42 (MMBTA42)	GMA43 (MMBTA43)	Unit 單位
Collector-Emitter Voltage 集電極-射極電壓	$V_{CEO}$	300	200	Vdc
Collector-Base Voltage 集電極-極電壓	$V_{CBO}$	300	200	Vdc
Emitter-Base Voltage 發射極基極電壓	$V_{EBO}$	6.0	6.0	Vdc
Collector Current-Continuous 集極電流-連續	$I_c$	500	500	mAdc

### ■ THERMAL CHARACTERISTICS 熱特性

Characteristic 特性參數	Symbol 符號	Max 最大值	Unit 單位
Total Device Dissipation 總耗散功率 Board(1) $T_A=25^{\circ}\text{C}$ 環境溫度 $25^{\circ}\text{C}$ Derate above $25^{\circ}\text{C}$ 超過 $25^{\circ}\text{C}$ 遞減	$P_D$	225 1.8	mW mW/ $^{\circ}\text{C}$
Thermal Resistance Junction to Ambient 熱阻	$R_{\theta JA}$	556	$^{\circ}\text{C}/\text{W}$
Total Device Dissipation 總耗散功率 Alumina Substrate 氧化鋁襯底(2) $T_A=25^{\circ}\text{C}$ Derate above $25^{\circ}\text{C}$ 超過 $25^{\circ}\text{C}$ 遞減	$P_D$	300 2.4	mW mW/ $^{\circ}\text{C}$
Thermal Resistance Junction to Ambient 熱阻	$R_{\theta JA}$	417	$^{\circ}\text{C}/\text{W}$
Junction and Storage Temperature 結溫和儲存溫度	$T_J, T_{stg}$	150 $^{\circ}\text{C}$ , -55to+150 $^{\circ}\text{C}$	

### ■ DEVICE MARKING 打標

MMBTA42=1D    MMBTA43=M1E



## MMBTA42/MMBTA43

### ■ ELECTRICAL CHARACTERISTICS 電特性

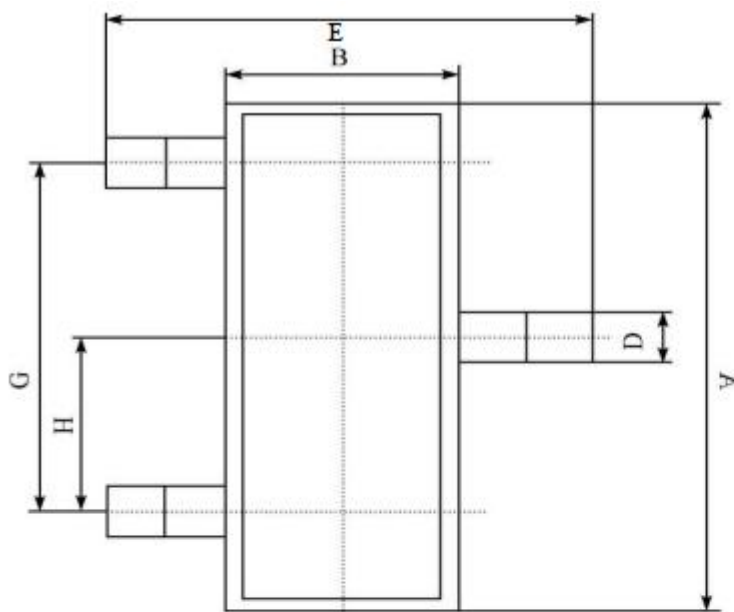
( $T_A=25^{\circ}\text{C}$  unless otherwise noted 如無特殊說明, 溫度為  $25^{\circ}\text{C}$ )

Characteristic 特性參數	Symbol 符號	Min 最小值	Max 最大值	Unit 單位
Collector-Emitter Breakdown Voltage(3) 集電極-射極擊穿電壓( $I_C=1\text{mA}$ , $I_B=0$ )	$V_{(BR)CEO}$ A42 A43	300 200	— —	Vdc
Collector-Base Breakdown Voltage 集電極-基極擊穿電壓( $I_C=100\mu\text{A}$ , $I_E=0$ )	$V_{(BR)CBO}$ A42 A43	300 200	— —	Vdc
Emitter-Base Breakdown Voltage 發射極-基極擊穿電壓( $I_E=100\mu\text{A}$ , $I_C=0$ )	$V_{(BR)EBO}$	6.0	—	Vdc
Emitter Cutoff Current 發射極截止電流 ( $V_{EB}=6.0\text{Vdc}$ , $I_C=0$ ) ( $V_{EB}=4.0\text{Vdc}$ , $I_C=0$ )	$I_{EBO}$ A42 A43	— —	100 100	nAdc
Collector Cutoff Current 集電極截止電流 ( $V_{CB}=200\text{Vdc}$ , $I_E=0$ ) ( $V_{CB}=160\text{Vdc}$ , $I_E=0$ )	$I_{CBO}$ A42 A43	— —	100 100	nAdc
DC Current Gain 直流電流增益	$H_{FE}$			—
( $I_C=1.0\text{mA}$ , $V_{CE}=10.0\text{Vdc}$ )		25	—	
( $I_C=10\text{mA}$ , $V_{CE}=10.0\text{Vdc}$ )		40	300	
( $I_C=30\text{mA}$ , $V_{CE}=10.0\text{Vdc}$ )	A42 A43	40 40	—	
Collector-Emitter Saturation Voltage 集電極-發射極飽和壓降 ( $I_C=20\text{mA}$ , $I_B=2.0\text{mA}$ )	$V_{CE(sat)}$ A42 A43	— —	0.5 0.5	Vdc
Base-Emitter Saturation Voltage 基極-發射極飽和壓降 ( $I_C=20\text{mA}$ , $I_B=2.0\text{mA}$ )	$V_{BE(sat)}$	—	0.9	Vdc
Current-Gain-Bandwidth Product 電流增益帶寬乘積 ( $I_C=10\text{mA}$ , $V_{CE}=20\text{Vdc}$ , $f=100\text{MHz}$ )	$f_T$	50	—	MHz
Collector-Base Capacitance 輸出電容 ( $V_{CB}=20.0\text{Vdc}$ , $I_E=0$ , $f=1.0\text{MHz}$ )	$C_{cb}$ A42 A43	— —	3.0 4.0	pF

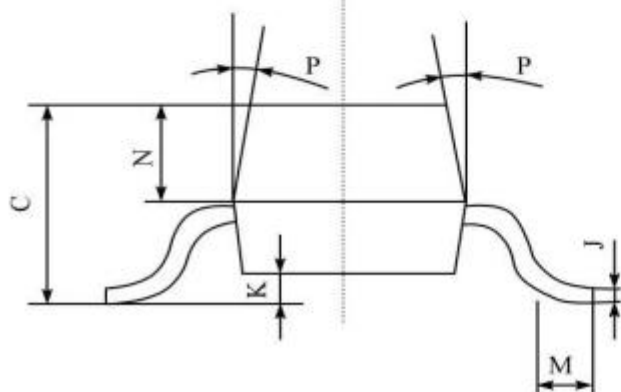
1. FR-5=1.0×0.75×0.062in.
2. Alumina=0.4×0.3×0.024in.99.5%alumina.
3. Pulse Width≤300us;Duty Cycle≤2.0%.

## MMBTA42/MMBTA43

### ■ DIMENSION 外形封装尺寸



代碼	範圍(單位:mm)
A	2.80~3.00
B	1.20~1.40
C	0.90~1.10
D	0.30~0.50
E	2.20~2.60
G	1.80~2.00
H	0.90~1.00
J	0.08~0.18
K	0.02~0.12
M	≥0.22
N	0.50~0.70
P	6°~10°



单击下面可查看定价，库存，交付和生命周期等信息

[>>FOSAN\(富信\)](#)