

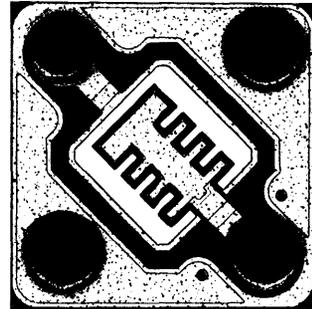
MMCF2906, MMCF2906A (SILICON) MMCF2907, MMCF2907A

FLIP-CHIP PNP SWITCH AND AMPLIFIER TRANSISTORS

Flip-Chip – General purpose PNP switching and amplifier transistor family similar to the 2N2906,A and 2N2907,A devices.

Primary Electrical Features:

- DC Current Gain specified for 0.1 to 300 mAdc
- Low Collector-Emitter Saturation Voltage
- DC to VHF Amplifier Applications
- Complements to MMCF2221,A and MMCF2222,A



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MAXIMUM RATINGS

Rating	Symbol	MMCF2906 MMCF2907	MMCF2906A MMCF2907A	Unit
Collector-Emitter Voltage	V_{CEO}	40	60	Vdc
Collector-Base Voltage	V_{CB}	60		Vdc
Emitter-Base Voltage	V_{EB}	5.0		Vdc
Collector Current – Continuous	I_C	500		mAdc

MMCF2906, MMCF2906A, MMCF2907, MMCF2907 (continued)

ELECTRICAL CHARACTERISTICS ($T_A = 25^\circ\text{C}$ unless otherwise noted)

Characteristic	Symbol	Min	Max	Unit
OFF CHARACTERISTICS				
Collector-Emitter Breakdown Voltage(1) ($I_C = 10\text{ mAdc}$, $I_B = 0$) MMCF2906, MMCF2907 MMCF2906A, MMCF2907A	BV_{CEO}	40 60		Vdc
Collector-Base Breakdown Voltage ($I_C = 10\ \mu\text{Adc}$, $I_E = 0$)	BV_{CBO}	60		Vdc
Emitter-Base Breakdown Voltage ($I_E = 10\ \mu\text{Adc}$, $I_C = 0$)	BV_{EBO}	5.0		Vdc
Collector Cutoff Current ($V_{CB} = 50\text{ Vdc}$, $I_E = 0$) MMCF2906, MMCF2907 MMCF2906A, MMCF2907A	I_{CBO}		20 10	nAdc
Emitter Cutoff Current ($V_{EB} = 3.0\text{ Vdc}$, $I_C = 0$)	I_{EBO}		10	nAdc

ON CHARACTERISTICS

DC Current Gain ($I_C = 0.1\text{ mAdc}$, $V_{CE} = 10\text{ Vdc}$) MMCF2906 MMCF2906A MMCF2907 MMCF2907A	h_{FE}	20 40 35 75		
($I_C = 1.0\text{ mAdc}$, $V_{CE} = 10\text{ Vdc}$) MMCF2906 MMCF2906A MMCF2907 MMCF2907A		25 40 50 100		
($I_C = 10\text{ mAdc}$, $V_{CE} = 10\text{ Vdc}$) MMCF2906 MMCF2906A MMCF2907 MMCF2907A		35 40 75 100		
($I_C = 150\text{ mAdc}$, $V_{CE} = 10\text{ Vdc}$)(1) MMCF2906,A MMCF2907,A		40 100	150 300	
($I_C = 300\text{ mAdc}$, $V_{CE} = 10\text{ Vdc}$)(1) MMCF2906 MMCF2906A MMCF2907 MMCF2907A		30 40 50 75		
Collector-Emitter Saturation Voltage(1) ($I_C = 150\text{ mAdc}$, $I_B = 15\text{ mAdc}$)	$V_{CE(sat)}$		0.5	Vdc
Base-Emitter Saturation Voltage(1) ($I_C = 150\text{ mAdc}$, $I_B = 15\text{ mAdc}$)	$V_{BE(sat)}$		1.5	Vdc

DYNAMIC CHARACTERISTICS

Current-Gain-Bandwidth Product ($I_C = 50\text{ mAdc}$, $V_{CE} = 20\text{ Vdc}$, $f = 100\text{ MHz}$)	f_T	200		MHz
Output Capacitance ($V_{CB} = 10\text{ Vdc}$, $I_E = 0$, $f = 100\text{ kHz}$)	C_{ob}		12	pF

(1) Pulse Test: Pulse Width $\leq 300\ \mu\text{s}$, Duty Cycle $\leq 2.0\%$

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