SILICON PLASTIC POWER TRANSISTOR
PNP 2N6107
7A 40W
Technical Data

…designed for use in general-purpose switching and amplifier applications.

- DC Current Gain - h_{FE} = 30-150 @ I_C = 2.0Adc
- Collector-Emitter Sustaining Voltage – V_{CEO}(sus) = 70 Vdc (Min)
- TO-220 Package

MAXIMUM RATINGS

Rating	Symbol	Value	Unit
Collector- Emitter Voltage	V_{CEO}	70	Vdc
Collector – Base Voltage	V_{CB}	80	Vdc
Emitter Base Voltage	V_{EB}	5	Vdc
Collector Current – Continuos Peak	I_C	7 10	Adc
Base Current	I_B	3	Adc
Total Power Dissipation @ TC = 25°C Derate above 25°C	PD	40 0.32	Watts W/°C
Operating and Storage junction Temperature Range	Tj,Tstg	-65 to +150	°C

THERMAL CHARACTERISTICS

Characteristic	Symbol	Max.	Unit
Thermal resistance junction to case	R_{thjc}	3.125	°C/W

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ELECTRICAL CHARACTERISTICS :[**Tc = 25 °C unless otherwise noted]**

Characteristic	Symbol	Min	Typ	Max	Unit
*** OFF CHARACTERISTICS :**					
Collector–Emitter Sustaining Voltage (1) [Ic =100 mAdc, I_B = 0]	$V_{CEO(sus)}$	70			Vdc
Collector Cutoff Current [V_{CE} = 60 Vdc, I_B = 0]	I_{CE0}			1	mAdc
Collector Cutoff Current [V_{CE} = 80 Vdc,$V_{BE(off)}$ = 1.5 Vdc] [V_{CE} =70 Vdc, $V_{BE(off)}$ = 1.5 Vdc , Tc = 150 °C]	I_{CEX}			100 2	✪Adc mAdc
Emitter Cutoff Current [V_{BE} =5.0 Vdc , Ic = 0]	I_{EBO}			1	mAdc
*** ON CHARACTERISTICS (1):**					
DC Current Gain [Ic = 2.0 Adc , V_{CE} = 4.0 Vdc] [Ic = 7 Adc , V_{CE} = 4.0 Vdc]	h_{FE}	 30 2.3		150	
Collector-Emitter Saturation Voltage [Ic = 7Adc , I_B = 3 Adc)	$V_{CE(sat)}$			3.5	Vdc
Base-Emitter on Voltage [Ic =7.0 Adc , V_{CE}= 4.0. V_{DC}]	$V_{BE(on)}$			3.0	Vdc
DYNAMIC CHARACTERISTICS :					
Current Gain – Bandwidth Product [Ic=0.5Adc,V_{CE}=4Vdc,ftest=1.0 MHz]	f_T	10			MHz
Small-Signal Current Gain [I_C= 0.5 Adc, V_{CE}=4.0 Vdc, f=50kHz]	hfe	20			
Output Capacitance (V_{CB}=10V,I_E=0,f=1.0MHz)	C_{OB}			250	pF

- Indicates within JEDEC Registration Data.
- (1) Pulse Test : Pulse Width <300μs , Duty Cycle < 2.0%