

SILICON PLASTIC POWER TRANSISTOR
NPN 2SD880Y
3A 30W

Technical Data

...designed for Low Frequency Power Amplifier.

- ☞ Collector-Emitter Voltage: $V_{CEO}=60V$
- ☞ DC Current Gain: 20 @ $I_C=3A$
- ☞ TO-220 Package

MAXIMUM RATINGS

Rating	Symbol	Value	Unit
Collector- Emitter Voltage	V_{CEO}	60	Vdc
Collector – Base Voltage	V_{CB}	60	Vdc
Emitter Base Voltage	V_{EB}	7	Vdc
Collector Current – Continuous	I_C	3	Adc
Base Current	I_B	0.3	Adc
Total Power Dissipation @ $T_C = 25^\circ C$ Derate above $25^\circ C$	PD	30 0.24	Watts W/ $^\circ C$
Operating and Storage junction Temperature Range	T_j, T_{stg}	-55 to +150	$^\circ C$

THERMAL CHARACTERISTICS

Characteristic	Symbol	Max.	Unit
Thermal resistance junction to case	R_{thjc}	4.16	$^\circ C/W$



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

Characteristic	Symbol	Min	Typ	Max	Unit
* OFF CHARACTERISTICS :					
Collector–Emitter Breakdown Voltage [Ic =50 mAdc, IB = 0]	V _{CEO(sus)}	60			Vdc
Collector Cutoff Current [V _{CB} = 60 Vdc, IB = 0]	I _{CB0}			100	⊛Adc
Collector–Base Breakdown Voltage [Ic =1mAdc, IE = 0]	BV _{CBO}	60			Vdc
Emitter Cutoff Current [V _{EB} =7Vdc, IC=0]	I _{EBO}			100	⊛Adc
* ON CHARACTERISTICS (1):					
DC Current Gain [Ic = 0.5 Adc , V _{CE} = 5.0 Vdc] [Ic =3 Adc , V _{CE} =5.0 Vdc]	h _{FE}	100 20		200	
Collector-Emitter Saturation Voltage [Ic = 3Adc , IB = 0.3Adc)	V _{CE(sat)}			1	Vdc
Emitter–Base Saturation Voltage [Ic =0.5Adc, V _{CE} =5V]	V _{BE(ON)}			1	Vdc
DYNAMIC CHARACTERISTICS :					
Current Gain – Bandwidth Product [Ic=0.5Adc,V _{CE} =5Vdc,f _{test} =1.0 MHz]	f _T		3		MHz
Collector Output Capacitance V _{CB} =10V,IE=0,f=1MHz	C _{OB}		70		pF

- (1) Pulse Test : Pulse Width <300µs , Duty Cycle < 2.0%