

SILICON PLASTIC POWER TRANSISTOR
NPN 2SC2233
4A 40W

Technical Data

...designed for use in B/W TV horizontal deflection output.

- ☞ Collector-Base Voltage: $V_{CBO}=200V$
- ☞ DC Current Gain: 20 @ $I_C=4A$
- ☞ TO-220 Package

MAXIMUM RATINGS

Rating	Symbol	Value	Unit
Collector- Emitter Voltage	V_{CEO}	60	Vdc
Collector – Base Voltage	V_{CB}	200	Vdc
Emitter Base Voltage	V_{EB}	5	Vdc
Collector Current – Continuous	I_C	4	Adc
Base Current	I_B	2	Adc
Total Power Dissipation @ $T_C = 25^\circ C$ Derate above $25^\circ C$	PD	40 0.32	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}	3.125	$^\circ C/W$



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

Characteristic	Symbol	Min	Typ	Max	Unit
* OFF CHARACTERISTICS :					
Collector–Emitter Breakdown Voltage [Ic =20 mAdc, IB = 0]	V _{CEO(sus)}	60			Vdc
Collector Cutoff Current [V _{CB} = 170 Vdc, IB = 0]	I _{CB0}			10	⊗Adc
Collector–Base Breakdown Voltage [Ic =1mAdc, IE = 0]	BV _{CBO}	200			Vdc
Emitter-Base Breakdown Voltage [IE=1mA,IC=0]	BV _{EBO}	5			Vdc
* ON CHARACTERISTICS (1):					
DC Current Gain [Ic = 1.0 Adc , V _{CE} = 5.0 Vdc] [Ic =4 Adc , V _{CE} =5.0 Vdc]	h _{FE}	30 20		150	
Collector-Emitter Saturation Voltage [Ic = 3Adc , IB = 0.3Adc]	V _{CE(sat)}			1	Vdc
Base Emitter Saturation Voltage [Ic =4A,IB=0.4A]	V _{BE(sat)}			1.5	Vdc
DYNAMIC CHARACTERISTICS :					
Current Gain – Bandwidth Product [Ic=0.5Adc,V _{CE} =5Vdc,ftest=1.0 MHz]	f _T		10		MHz

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