



S8050LT1

PLASTIC-ENCAPSULATE TRANSISTORS

S8050LT1 TRANSISTOR (NPN)

SOT-23

FEATURES

Power dissipation

P_{CM} : 0.3 W ($T_{amb}=25^{\circ}C$)

Collector current

I_{CM} : 0.5 A

Collector-base voltage

$V_{(BR)CBO}$: 40 V



1. BASE

2. EMITTER

3. COLLECTOR

ELECTRICAL CHARACTERISTICS ($T_{amb}=25^{\circ}C$ unless otherwise specified)

Parameter	Symbol	Test conditions	MIN	TYP	MAX	UNIT
Collector-base breakdown voltage	$V_{(BR)CBO}$	$I_C = 100 \mu A$, $I_E = 0$	40			V
Collector-emitter breakdown voltage	$V_{(BR)CEO}$	$I_C = 0.1mA$, $I_B = 0$	25			V
Emitter-base breakdown voltage	$V_{(BR)EBO}$	$I_E = 100 \mu A$, $I_C = 0$	5			V
Collector cut-off current	I_{CBO}	$V_{CB} = 40V$, $I_E = 0$			0.1	μA
Collector cut-off current	I_{CEO}	$V_{CB} = 20V$, $I_E = 0$			0.1	μA
Emitter cut-off current	I_{EBO}	$V_{EB} = 5V$, $I_C = 0$			0.1	μA
DC current gain(note)	$H_{FE(1)}$	$V_{CE} = 1V$, $I_C = 50mA$	120		350	
	$H_{FE(2)}$	$V_{CE} = 1V$, $I_C = 500mA$	50			
Collector-emitter saturation voltage	$V_{CE(sat)}$	$I_C = 500mA$, $I_B = 50mA$			0.6	V
Base-emitter saturation voltage	$V_{CE(sat)}$	$I_C = 500mA$, $I_B = 50mA$			1.2	V
Base-emitter voltage	V_{BE}	$I_E = 100mA$			1.4	
Transition frequency	f_T	$V_{CE} = 6V$, $I_C = 20mA$ $f = 30MHz$	150			MHz

CLASSIFICATION OF $H_{FE(1)}$

Rank	L	H
Range	100-200	200-350

DEVICE MARKING : S8050LT1=J3Y