



JIANGSU CHANGJIANG ELECTRONICS TECHNOLOGY CO., LTD

TO-251/TO-252-2 Plastic-Encapsulate Transistors

2SD1802 TRANSISTOR (NPN)

FEATURES

Power dissipation

P_{CM} : 1 W ($T_{amb}=25^{\circ}C$)

Collector current

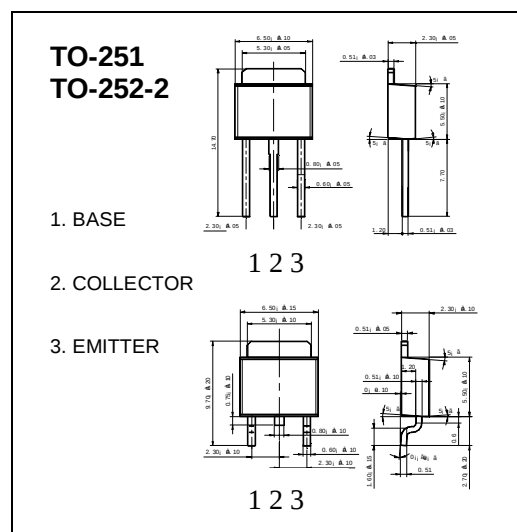
I_{CM} : 3 A

Collector-base voltage

$V_{(BR)CBO}$: 60 V

Operating and storage junction temperature range

T_J, T_{stg} : $-55^{\circ}C$ to $+150^{\circ}C$



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

Parameter	Symbol	Test conditions	MIN	TYP	MAX	UNIT
Collector-base breakdown voltage	$V_{(BR)CBO}$	$I_C=10\mu A, I_E=0$	60			V
Collector-emitter breakdown voltage	$V_{(BR)CEO}$	$I_C=1mA, I_B=0$	50			V
Emitter-base breakdown voltage	$V_{(BR)EBO}$	$I_E=10\mu A, I_C=0$	6			V
Collector cut-off current	I_{CBO}	$V_{CB}=40V, I_E=0$			1	μA
Emitter cut-off current	I_{EBO}	$V_{EB}=4V, I_C=0$			1	μA
DC current gain	$h_{FE(1)}$	$V_{CE}=2V, I_C=100mA$	100		560	
	$h_{FE(2)}$	$V_{CE}=2V, I_C=3A$	35			
Collector-emitter saturation voltage	$V_{CE(sat)}$	$I_C=2A, I_B=100mA$			0.5	V
Base-emitter saturation voltage	$V_{BE(sat)}$	$I_C=2A, I_B=100mA$			1.2	V
Transition frequency	f_T	$V_{CE}=10V, I_C=50mA$		150		MHz
Collector output capacitance	C_{ob}	$V_{CB}=10V, I_E=0, f=1MHz$		25		pF
Turn-off time	t_{on}	$V_{CC}=25V, I_C=1A$ $I_{B1}=-I_{B2}=0.1A$		70		nS
Fall time	t_f			650		
Storage time	t_s			35		

CLASSIFICATION OF $h_{FE(1)}$

Rank	R	S	T	U
Range	100-200	140-280	200-400	280-560
Marking				

Typical Characteristics

2SD1802

