

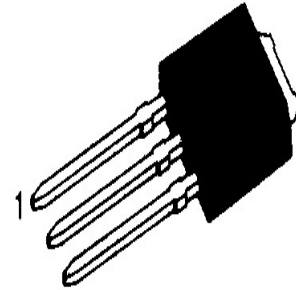
2SD1803

NPN EPITAXIAL SILICON TRANSISTOR

ABSOLUTE MAXIMUM RATINGS(Ta=25)

Characteristic	Symbol	Rating	Unit
Collector-Base Voltage	V _{CBO}	60	V
Collector-Emitter Voltage	V _{CEO}	50	V
Emitter -Base Voltage	V _{EBO}	6	V
Collector Current (DC)	I _c	5	A
Collector Current (Pulse)	I _{cp}	8	A
Collector Dissipation (T _c =25)	P _c	10	W
Junction Temperature	T _J	150	
Storage Temperature	T _{STG}	-55 ~150	

TO-251



1.Base 2.Collector 3.Emitter

ELECTRICAL CHARACTERISTICS(Ta=25)

Characteristic	Symbol	Test Conditions	Min	Typ	Max	Unit
Collector-Cutoff Current	I _{CBO}	V _{CB} = 40V, I _E =0			1	μ A
Emitter-Cutoff Current	I _{EBO}	V _{EB} = 4V, I _c =0			1	μ A
*DC Current Gain	h _{FE1}	V _{CE} = 2V, I _c = 0.5A	70		400	
	h _{FE2}	V _{CE} = 2V, I _c = 4A	35			
Current Gain-Bandwidth Product	f _T	V _{CE} = 5V, I _c =1A		180		MHZ
Output Capacitance	C _{OB}	V _{CB} = 10V, I _E =0, f=1MHZ		40		pF
Collector-Emitter Saturation Voltage	V _{CE(sat)}	I _c = 2A, I _B = 0.10A		220	400	mV
Base-Emitter Saturation Voltage	V _{BE(sat)}	I _c = 2A, I _B = 0.10A		0.95	1.3	V
Collector-to-Base Breakdown Voltage	V _{BR(CBO)}	I _c = 10 μ A, I _E = 0	60			V
Collector-to-Emitter Breakdown Voltage	V _{BR(CEO)}	I _c = 1mA, R _{BE} =	50			V
Emitter-to-Base Breakdown Voltage	V _{BR(EBO)}	I _E = 10 μ A, I _c = 0	6			V
Turn-ON Time	t _{ON}	See specified Test Circuit		50		ns
Storage Time	t _{stg}	See specified Test Circuit		500		ns
Fall Time	t _f	See specified Test Circuit		20		ns

HFE (2) CLASSIFICATION

Classification	Q	R	S	T
HFE(2)	70-140	100-200	140-280	200-400