Power Transistor (100V, 5A)

2SD2616

●Features

1) Low saturation voltage, typically $V_{CE(sat)}$ = -0.3V at I_C / I_B=3A / 0.3A.
2) Excellent h_{FE} current characteristics.
3) Pc=30W. (Tc=25°C)

●Absolute maximum ratings (Ta=25°C)

Parameter	Symbol	Limits	Unit
Collector-base voltage	V_{CBO}	100	V
Collector-emitter voltage	V_{CEO}	100	V
Emitter-base voltage	V_{EBO}	5	V
Collector current	I_C	5	A(DC)
		10	A(Pulse) *
Collector power dissipation	P_C	2	W
		30	W(Tc=25˚C)
Junction temperature	Tj	150	˚C
Storage temperature	Tstg	-55~+150	˚C

* Single pulse, Pw=100ms

●Packaging specifications and Hfe

Type	2SD2616
Package	TO-220FN
h_{FE}	E
Code	-
Basic ordering unit (pieces)	500

●Electrical characteristics (Ta=25°C)

Parameter	Symbol	Min.	Typ.	Max.	Unit	Conditions
Collector-base breakdown voltage	BV_{CBO}	100	-	-	V	I_C=50μA
Collector-emitter breakdown voltage	BV_{CEO}	100	-	-	V	I_C=1mA
Emitter-base breakdown voltage	BV_{EBO}	5	-	-	V	I_E=50μA
Collector cutoff current	I_{CBO}	-	-	10	μA	V_{CB}=100V
Emitter cutoff current	I_{EBO}	-	-	10	μA	V_{EB}=5V
Collector-emitter saturation voltage	$V_{CE(sat)}$	-	0.3	1.0	V	I_C/I_B=3A/0.3A *
Base-emitter saturation voltage	$V_{BE(sat)}$	-	-	1.5	V	I_C/I_B=3A/0.3A *
DC current transfer ratio	h_{FE}	100	-	200	-	V_{CE}/I_C=5V/1A
Transition frequency	f_T	-	8	-	MHz	V_{CE}=5V , I_E=-0.5A , f=5MHz *
Output capacitance	Cob	-	100	-	pF	V_{CB}=10V , I_E=0A , f=1MHz

* Measured using pulse current.