Power Transistor (15V, 1A) 2SD2444K

● Features

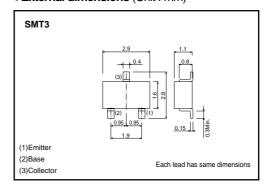
- 1) Low saturation voltage, $V_{CE(sat)} = 0.3V$ (Max.) at $I_C/I_B = 0.4A/20mA$.
- 2) $I_C = 1A$
- 3) Complements the 2SB1590K.

●Packaging specification and h_{FE}

Туре	2SD2444K
Package	SMT3
hfe	R
Marking	BS*
Code	T146
Basic ordering unit (pieces)	3000

^{*} Denotes hre

●External dimensions (Unit : mm)



● Absolute maximum ratings (Ta=25°C)

Parameter	Symbol	Limits	Unit	
Collector-base voltage	Vсво	15	V	
Collector-emitter voltage	Vceo	15	V	
Emitter-base voltage	VEBO	6	V	
Collector current	lc	1	A (DC)	
Collector power dissipation	Pc	0.2	W	
Junction temperature	Tj	150	°C	
Storage temperature	Tstg	-55 to +150	°C	

●Electrical characteristics (Ta=25°C)

Parameter	Symbol	Min.	Тур.	Max.	Unit	Conditions
Collector-base breakdown voltage	ВУсво	15	-	_	V	Ic=50μA
Collector-emitter breakdown voltage	BVceo	15	-	_	V	Ic=1mA
Emitter-base breakdown voltage	ВУево	6	-	-	V	Iε=50μA
Collector cutoff current	Ісво	_	-	0.5	μΑ	Vcb=12V
Emitter cutoff current	ІЕВО	_	-	0.5	μΑ	V _{EB} =5V
Collector-emitter saturation voltage	VCE(sat)	-	-	0.3	V	Ic=400mA, Iв=20mA
DC current transfer ratio	hfe	180	-	390	_	Vce/Ic=2V/50mA
Transition frequency	f⊤	_	200	_	MHz	Vce=2V, Ie= -50mA, f=100MHz
Output capacitance	Cob	-	15	_	pF	Vcb=10V, Ie=0A, f=1MHz

Electrical characteristic curves

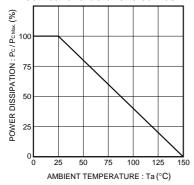


Fig.1 Grounded emitter output characteristics

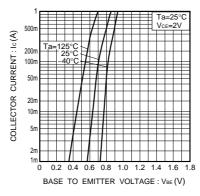


Fig.2 Grounded emitter propagation characteristics

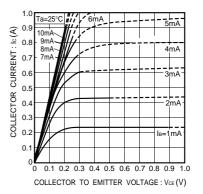


Fig.3 Grounded emitter output characteristics

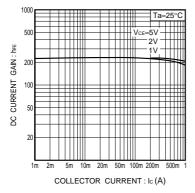


Fig.4 DC current gain vs. collector current (I)

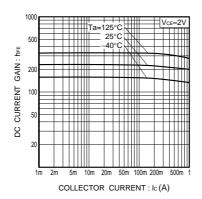


Fig.5 DC collector gain vs. collector current (II)

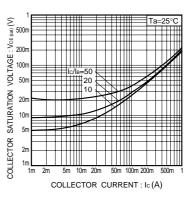


Fig.6 Collector-emitter saturation voltage vs. collector current (I)

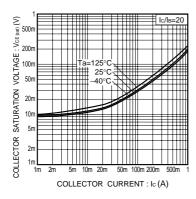


Fig.7 Collector-emitter saturation voltage vs. collector current (II)

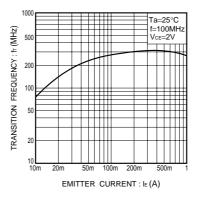


Fig.8 Transition frequency vs. emitter current

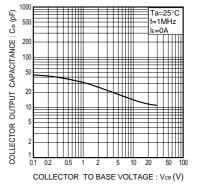


Fig.9 Collector output capacitance vs. collector-base voltage

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