

High-current gain Power Transistor (60V, 3A)

2SD2318

●Features

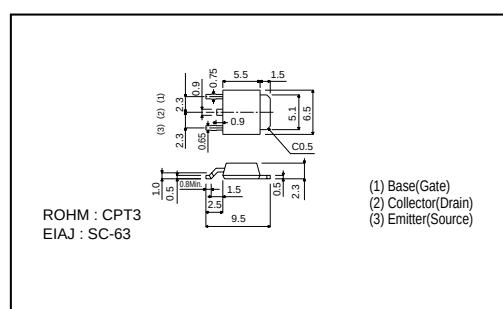
- 1) High DC current gain.
- 2) Low saturation voltage.
(Typ. $V_{CE(sat)}=0.5V$ at $I_C/I_B=2A/0.5A$)
- 3) Complements the 2SB1639.

●Absolute maximum ratings ($T_a=25^\circ C$)

Parameter	Symbol	Limits	Unit
Collector-base voltage	V_{CBO}	80	V
Collector-emitter voltage	V_{CEO}	60	V
Emitter-base voltage	V_{EBO}	6	V
Collector current	I_C	3	A
		4.5	A(Pulse) *
Collector power dissipation	P_C	1	W
		15	W($T_c=25^\circ C$)
Junction temperature	T_J	150	$^\circ C$
Storage temperature	T_{stg}	-55~+150	$^\circ C$

* Single pulse $P_w=100ms$

●External dimensions (Units : mm)



●Packaging specifications and h_{FE}

Type	2SD2318
Package	CPT3
h_{FE}	UV
Code	TL
Basic ordering unit (pieces)	2500

●Electrical characteristics ($T_a=25^\circ C$)

Parameter	Symbol	Min.	Typ.	Max.	Unit	Conditions
Collector-base breakdown voltage	BV_{CBO}	80	-	-	V	$I_C=50\mu A$
Collector-emitter breakdown voltage	BV_{CEO}	60	-	-	V	$I_C=1mA$
Emitter-base breakdown voltage	BV_{EBO}	6	-	-	V	$I_E=50\mu A$
Collector cutoff current	I_{CBO}	-	-	100	μA	$V_{CB}=80V$
Emitter cutoff current	I_{EBO}	-	-	100	μA	$V_{EB}=6V$
Collector-emitter saturation voltage	$V_{CE(sat)}$	-	-	1.0	V	$I_C/I_B=2A/0.05A$ *
Base-emitter saturation voltage	$V_{BE(sat)}$	-	-	1.5	V	$I_C/I_B=2A/0.05A$ *
DC current transfer ratio	h_{FE}	560	-	1800	-	$V_{CE}/I_C=4V/0.5A$
Transition frequency	f_T	-	50	-	MHz	$V_{CE}=5V, I_E=-0.2A, f=10MHz$
Output capacitance	C_{ob}	-	60	-	pF	$V_{CB}=10V, I_E=0A, f=1MHz$ *

* Measured using pulse current.