

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

## 2SD2318

### ●Features

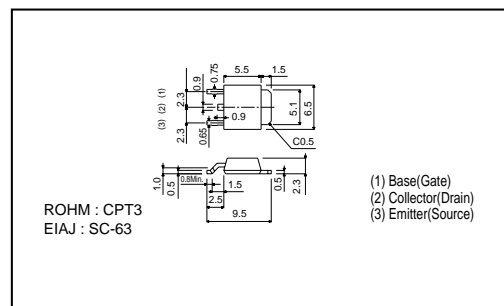
- 1) High DC current gain.
- 2) Low saturation voltage.  
(Typ.  $V_{CE(sat)}=0.5V$  at  $I_C/I_B=2A/0.5A$ )
- 3) Complements the 2SB1639.

### ●Absolute maximum ratings (Ta=25°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(Tc=25°C)
Junction temperature	$T_J$	150	°C
Storage temperature	$T_{stg}$	-55~+150	°C

\* Single pulse  $P_w=100ms$

### ●External dimensions (Units : mm)



### ●Packaging specifications and hFE

Type	2SD2318
Package	CPT3
hFE	UV
Code	TL
Basic ordering unit (pieces)	2500

### ●Electrical characteristics (Ta=25°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	$\mu A$	$V_{CB}=80V$
Emitter cutoff current	$I_{EBO}$	-	-	100	$\mu A$	$V_{EB}=6V$
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	hFE	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.

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