

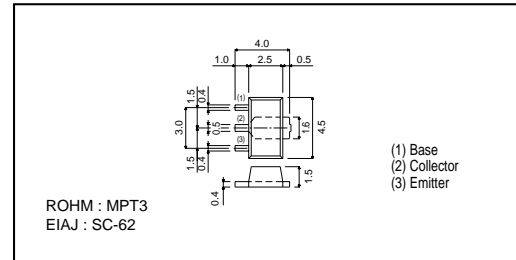
# High gain amplifier transistor (25V, 2A)

## 2SD2153

### ●Features

- 1) Low saturation voltage,  
typically  $V_{CE(sat)} = 0.12V$  at  $I_C = I_B = 1A / 20mA$
- 2) Excellent DC current gain characteristics.

### ●External dimensions (Units : mm)



### ●Absolute maximum ratings (Ta=25°C)

Parameter	Symbol	Limits	Unit
Collector-base voltage	$V_{CBO}$	30	V
Collector-emitter voltage	$V_{CEO}$	25	V
Emitter-base voltage	$V_{EBO}$	6	V
Collector current	$I_C$	2	A(DC)
		3	A(Pulse) *
Collector power dissipation	$P_C$	0.5	W
Junction temperature	$T_J$	150	°C
Storage temperature	$T_{stg}$	-55 ~ +150	°C

\* Single pulse,  $P_w=10ms$

### ●Packaging specifications and hFE

Type	2SD2153
Package	MPT3
hFE	UVW
Marking	DN *
Code	T100
Basic ordering unit (pieces)	1000

\* Denotes hFE

### ●Electrical characteristics (Ta=25°C)

Parameter	Symbol	Min.	Typ.	Max.	Unit	Conditions
Collector-base breakdown voltage	$BV_{CBO}$	30	-	-	V	$I_C = 50\mu A$
Collector-emitter breakdown voltage	$BV_{CEO}$	25	-	-	V	$I_C = 1mA$
Emitter-base breakdown voltage	$BV_{EBO}$	6	-	-	V	$I_E = 50\mu A$
Collector cutoff current	$I_{CBO}$	-	-	0.5	$\mu A$	$V_{CB} = 20V$
Emitter cutoff current	$I_{EBO}$	-	-	0.5	$\mu A$	$V_{EB} = 5V$
Collector-emitter saturation voltage	$V_{CE(sat)}$	-	0.12	0.5	V	$I_C/I_B = 1A/20mA$ *
DC current transfer ratio	$h_{FE}$	560	-	2700	-	$V_{CE}/I_C = 6V/0.5A$
Transition frequency	$f_T$	-	110	-	MHz	$V_{CE} = 10V, I_E = -10mA, f = 100MHz$
Output capacitance	$C_{ob}$	-	22	-	pF	$V_{CB} = 10V, I_E = 0A, f = 1MHz$

\* Measured using pulse current.