

# General Purpose Transistor (50V, 0.15A)

## 2SD2654 / 2SD2351 / 2SD2226K / 2SD2227S

### ●Features

- 1) High DC current gain.
- 2) High emitter-base voltage. ( $V_{CE0}=12V$ )
- 3) Low saturation voltage.  
(Typ.  $V_{CE(sat)}=0.3V$  at  $I_c/I_b=50mA/5mA$ )

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

Parameter	Symbol	Limits	Unit
Collector-base voltage	$V_{CBO}$	60	V
Collector-emitter voltage	$V_{CEO}$	50	V
Emitter-base voltage	$V_{EBO}$	12	V
Collector current	$I_c$	0.15	A (DC)
		0.2	A (Pulse)*
Collector power dissipation	$P_c$	0.15	W
		0.2	
		0.3	
Junction temperature	$T_j$	150	°C
Storage temperature	$T_{stg}$	-55~+150	°C

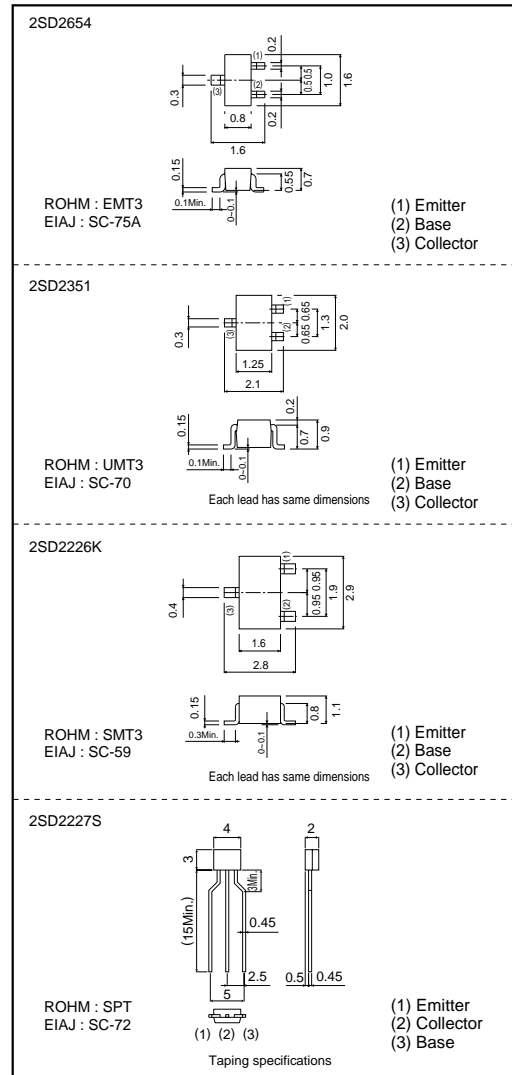
\*Single pulse Pw=100ms

### ●Packaging specifications and hFE

Type	2SD2654	2SD2351	2SD2226K	2SD2227S
Package	EMT3	UMT3	SMT3	SPT
hFE	VW	VW	VW	W
Marking	BJ*	BJ*	BJ*	-
Code	TL	T106	T146	TP
Basic ordering unit (pieces)	3000	3000	3000	5000

\* Denotes hFE

### ●External dimensions (Units : mm)



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

Parameter	Symbol	Min.	Typ.	Max.	Unit	Conditions
Collector-base breakdown voltage	$BV_{CBO}$	60	-	-	V	$I_c=10\mu A$
Collector-emitter breakdown voltage	$BV_{CEO}$	50	-	-	V	$I_c=1mA$
Emitter-base breakdown voltage	$BV_{EBO}$	12	-	-	V	$I_E=10\mu A$
Collector cutoff current	$I_{cbo}$	-	-	0.3	$\mu A$	$V_{CB}=50V$
Emitter cutoff current	$I_{EBO}$	-	-	0.3	$\mu A$	$V_{EB}=12V$
Collector-emitter saturation voltage	$V_{CE(sat)}$	-	-	0.3	V	$I_c/I_b=50mA/5mA$
DC current transfer ratio	hFE	560	-	2700	-	$V_{CE}/I_c=5V/1mA$
		1200	-	2700	-	$V_{CE}/I_c=5V/1mA$
Transition frequency	$f_r$	-	250	-	MHz	$V_{CE}=5V, I_E=10mA, f=100MHz$
Output capacitance	$C_{ob}$	-	3.5	-	pF	$V_{CB}=5V, I_E=0A, f=1MHz$

\*Measured using pulse current.