

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 ($T_a = 25^\circ C$)

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	$^\circ C$
Storage temperature	T_{stg}	-55~+150	$^\circ C$

*Single pulse $P_w=100ms$ ●Packaging specifications and h_{FE}

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

* Denotes h_{FE}

●External dimensions (Units : mm)

2SD2654 ROHM : EMT3 EIAJ : SC-75A (1) Emitter (2) Base (3) Collector	2SD2351 ROHM : UMT3 EIAJ : SC-70 (1) Emitter (2) Base (3) Collector Each lead has same dimensions
2SD2226K ROHM : SMT3 EIAJ : SC-59 (1) Emitter (2) Base (3) Collector Each lead has same dimensions	2SD2227S ROHM : SPT EIAJ : SC-72 (1) Emitter (2) Collector (3) Base Taping specifications

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

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	μA	$V_{CB}=50V$
Emitter cutoff current	I_{EBO}	—	—	0.3	μA	$V_{EB}=12V$
Collector-emitter saturation voltage	$V_{CE(sat)}$	—	—	0.3	V	$I_C/I_B=50mA/5mA$
DC current transfer ratio	2SD2654, 2SD2351, 2SD2226K 2SD2227S	h_{FE}	560	—	2700	$V_{CE}/I_C=5V/1mA$
			1200	—	2700	$V_{CE}/I_C=5V/1mA$
Transition frequency	f_T	—	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.