

Medium Power Transistor (25V, 1.2A)

2SD2537

●Features

- 1) High DC current gain.
- 2) High emitter-base voltage, $V_{EBO}=12V$,
- 3) Low saturation voltage, $V_{CE(sat)}=0.3V$ (Max.) at $I_C/I_E=500mA/10mA$.

●Packaging specifications and hFE

Type	2SD2537
Package	MPT3
hFE	VW
Marking	DV*
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	$I_C=10\mu A$
Collector-emitter breakdown voltage	BV_{CEO}	25	—	—	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	$V_{CB}=30V$
Emitter cutoff current	I_{EBO}	—	—	0.3	μA	$V_{EB}=12V$
Collector-emitter saturation voltage	$V_{CE(sat)}$	—	—	0.3	V	$I_C/I_E=500mA/10mA$ *
DC current transfer ratio	hFE	820	—	2700	—	$V_{CE}/I_C=5V/0.5A$
Transition frequency	f_T	—	200	—	MHz	$V_{CE}=10V, I_E=-50mA, f=100MHz$ *
Output capacitance	Cob	—	20	—	pF	$V_{CB}=10V, I_E=0A, f=1MHz$

* Measured using pulse current.

(94L-1061-D212)

General Purpose Transistor (50V, 0.15A)

2SD2351 / 2SD2226K / 2SD2227S

●Features

- 1) High DC current gain.
- 2) High emitter-base voltage, $V_{EBO}=12V$.
- 3) Low saturation voltage, typically $V_{CE(sat)}=0.3V$ at $I_C/I_E=50mA/5mA$.

●Packaging specifications and hFE

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

* Denotes hFE

●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	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	$I_C/I_E=50mA/5mA$ *
DC current transfer ratio	2SD2351, 2SD2226K	560	—	2700	—	$V_{CE}/I_C=5V/1mA$ *
	2SD2227S	1200	—	2700	—	$V_{CE}/I_C=5V/1mA$ *
Transition frequency	f_T	—	250	—	MHz	$V_{CE}=5V, I_E=-10mA, f=100MHz$ *
Output capacitance	Cob	—	3.5	—	pF	$V_{CB}=5V, I_E=0A, f=1MHz$

* Measured using pulse current.

●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}	12	V
Collector current	I_C	1.2	A (DC)
		2	A (Pulse) *1
Collector power dissipation	P_C	2	W *2
		0.3	W
Junction temperature	T_J	150	°C
Storage temperature	T_{stg}	-55~+150	°C

*1 Single pulse $P_w=100ms$ *2 When mounted on a 40 x 40 x 0.7 mm ceramic board.

●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	2SD2351, 2SD2226K 2SD2227S	0.2	W
		0.3	W
Junction temperature	T_J	150	°C
Storage temperature	T_{stg}	-55~+150	°C

* Single pulse $P_w=100ms$

(94S-374-D215)