Medium Power Transistor（50V, 0.5A）

2SD1949 / 2SD1484K / 2SC1741AS

●Features

1） High current. (I_C=5A)
2） Low saturation voltage, typically $V_{CE(sat)}$ =0.1V at I_C / I_B= 150mA / 15mA.

●Absolute maximum ratings（Ta=25℃）

Parameter		Symbol	Limits	Unit
Collector-base voltage		V_{CBO}	50	V
Collector-emitter voltage		V_{CEO}	50	V
Emitter-base voltage		V_{EBO}	5	V
Collector current		I_C	0.5	A
Collector power dissipation	2SD1949,2SD1484K	P_C	0.2	W
	2SC1741AS		0.3	
Junction temperature		Tj	150	℃
Storage temperature		Tstg	−55～+150	℃

●Packaging specifications and h_{FE}

Type	2SD1949	2SD1484K	2SC1741AS
Package	UMT3	SMT3	SPT
h_{FE}	QR	QR	QR
Marking	Y✻	Y✻	—
Code	T106	T146	TP
Basic ordering unit (pieces)	3000	3000	5000

✻ Denotes h_{FE}

●Electrical characteristics（Ta=25℃）

Parameter	Symbol	Min.	Typ.	Max.	Unit	Conditions
Collector-base breakdown voltage	BV_{CBO}	50	—	—	V	I_C=100 μA
Collector-emitter breakdown voltage	BV_{CEO}	50	—	—	V	I_C=1mA
Emitter-base breakdown voltage	BV_{EBO}	5	—	—	V	I_E=100 μA
Collector cutoff current	I_{CBO}	—	—	0.5	μA	V_{CB}=30V
Emitter cutoff current	I_{EBO}	—	—	0.5	μA	V_{EB}=4V
DC current transfer ratio	h_{FE}	120	—	560	—	V_{CE}/I_C=3V/0.1A
Collector-emitter saturation voltage	$V_{CE(sat)}$	—	—	0.4	V	I_C/I_B=150mA/15mA
Transition frequency	f_T	—	250	—	MHz	V_{CE}=5V , I_E=−20mA , f=100MHz
Output capacitance	Cob	—	6.5	—	pF	V_{CB}=10V , I_E=0A , f=1MHz

(96-678-D15)

Power Transistor（80V, 0.3A）

2SC3359S

●Features

1） High breakdown voltage, BV_{CEO}=80V.
2） Low saturation voltage, typically $V_{CE(sat)}$ =0.2V at I_C / I_B= 0.3A / 0.03A.

●Absolute maximum ratings（Ta=25℃）

Parameter	Symbol	Limits	Unit
Collector-base voltage	V_{CBO}	80	V
Collector-emitter voltage	V_{CEO}	80	V
Emitter-base voltage	V_{EBO}	5	V
Collector current	I_C	0.3	A
Collector power dissipation	P_C	0.3	W
Junction temperature	Tj	150	℃
Storage temperature	Tstg	−55～+150	℃

●Packaging specifications and h_{FE}

Type	2SC3359S
Package	SPT
h_{FE}	QR
Code	TP
Basic ordering unit (pieces)	5000

●Electrical characteristics（Ta=25℃）

Parameter	Symbol	Min.	Typ.	Max.	Unit	Conditions
Collector-emitter breakdown voltage	BV_{CEO}	80	—	—	V	I_C=1mA
Collector-base breakdown voltage	BV_{CBO}	80	—	—	V	I_C=50 μA
Emitter-base breakdown voltage	BV_{EBO}	5	—	—	V	I_E=50 μA
Collector cutoff current	I_{CBO}	—	—	0.5	μA	V_{CB}=80V
Emitter cutoff current	I_{EBO}	—	—	0.5	μA	V_{EB}=4V
Collector-emitter saturation voltage	$V_{CE(sat)}$	—	0.2	0.5	V	I_C/I_B=0.3/0.03A
DC current transfer ratio	h_{FE}	120	—	390	—	V_{CE}=3V , I_C=0.1A
Transition frequency	f_T	50	150	—	MHz	V_{CE}=5V , I_E=0.01A , f=100MHz
Output capacitance	Cob	—	5	8	pF	V_{CB}=10V , I_E=0A , f=1MHz

(SPEC-D16)