Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from,Europe,America and south Asia,supplying obsolete and hard-to-find components to meet their specific needs.

With the principle of “Quality Parts,Customers Priority,Honest Operation,and Considerate Service”,our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip,ALPS,ROHM,Xilinx,Pulse,ON,Everlight and Freescale. Main products comprise IC,Modules,Potentiometer,IC Socket,Relay,Connector.Our parts cover such applications as commercial,industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!

Contact us

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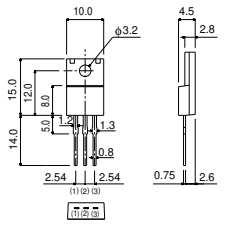
High-speed Switching Transistor (–60V,–12A)

2SA2007

●Features

1) High switching speed.
   (Typ. tf = 0.15μs at Ic = –6A)
2) Low saturation voltage.
   (Typ. $V_{CE(sat)}$ = –0.2V at I_C / I_B = –6A / –0.3A)
3) Wide SOA. (safe operating area)
4) Complements the 2SC5526.

●External dimensions (Units : mm)



(1) Base(Gate)
(2) Collector(Drain)
(3) Emitter(Source)

ROHM : TO-220FN

●Absolute maximum ratings (Ta = 25°C)

Parameter	Symbol	Limits	Unit
Collector-base voltage	V_{CBO}	–100	V
Collector-emitter voltage	V_{CEO}	–60	V
Emitter-base voltage	V_{EBO}	–5	V
Collector current	I_C	–12	A
		–20	A(Pulse)
Collectorpowerdissipation	P_C	2	W
		25	W(Tc=25°C)
Junction temperature	Tj	150	°C
Storage temperature	Tstg	–55 ~ +150	°C

●Packaging specifications and h_{FE}

Type	2SA2007
Package	TO-220FN
h_{FE}	F
Code	–
Basic ordering unit (pieces)	500

●Electrical characteristics (Ta = 25°C)

Parameter	Symbol	Min.	Typ.	Max.	Unit	Conditions
Collector-base breakdown voltage	BV_{CBO}	–100	–	–	V	I_C = –50μA
Collector-emitter breakdown voltage	BV_{CEO}	–60	–	–	V	I_C = –1mA
Emitter-base breakdown voltage	BV_{EBO}	–5	–	–	V	I_E = –50μA
Collector cutoff current	I_{CBO}	–	–	–10	μA	V_{CB} = –100V
Emitter cutoff current	I_{EBO}	–	–	–10	μA	V_{EB} = –5V
Collector-emitter saturation voltage	$V_{CE(sat)}$	–	–	–0.3	V	I_C/I_B = –6A/–0.3A
		–	–	–0.5	V	I_C/I_B = –8A/–0.4A
Base-emitter saturation voltage	$V_{BE(sat)}$	–	–	–1.2	V	I_C/I_B = –6A/–0.3A
		–	–	–1.5	V	I_C/I_B = –8A/–0.4A
DC current transfer ratio	h_{FE}	160	–	320	–	V_{CE} = –2V , I_C = –2A
Transition frequency	f_T	–	80	–	MHz	V_{CE} = –10V , I_E = 1A , f = 30MHz
Output capacitance	Cob	–	250	–	pF	V_{CB} = –10V , I_E = 0A , f = 1MHz
Turn-on time	ton	–	–	0.3	μs	I_C = –6A , R_L = 5Ω
Storage time	tstg	–	–	1.5	μs	I_{B1} = –I_{B2} = –0.3A
Fall time	tf	–	–	0.3	μs	V_{CC} = –30V