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Rohm Semiconductor 2SD2679T100

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# Transistors

2SD2679

# 2A / 30V Bipolar transistor 2SD2679

### Applications

Low frequency amplification, driver

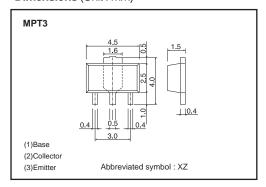
### Features

1) Collector current is high. 2) Low collector-emitter saturation voltage.  $(V_{CE(sat)} \le 350 \text{mV} \text{ at Ic} = 1.5\text{A}, \text{ IB} = 75 \text{mA})$ 

### Structure

NPN epitaxial planar silicon transistor

### •Dimensions (Unit : mm)



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

Parameter		Symbol	Limits	Unit	
Collector-base voltage		Vсво	30	V	
Collector-emitter voltage		Vceo	30	V	
Emitter-base voltage		Vebo	6	V	
Collector current	DC	lc	2	A	
	Pulse	Іср	4 *1		
Power dissipation		Pc	0.5 *2	W	
		FC	2 *3		
Junction temperature		tj	150	°C	
Storage temperature		tstg	-55 to +150	°C	
Junction temperature		tj	150	°C	

\*1 Pw=1ms, single pulse.
\*2 Each terminal mounted on a recommended land.
\*3 Mounted on a 40×40×0.7mm ceramic board.

# Packaging specifications

	Package	MPT3
	Packaging type	Taping
	Code	T100
Part No.	Basic ordering unit (pieces)	1000
2SD2679		0

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

Parameter	Symbol	Min.	Тур.	Max.	Unit	Conditions
Collector-emitter breakdown voltage	BVCEO	30	-	-		Ic=1mA
Collector-base breakdown voltage	ВУсво	30	-	-	V	Ic=10μA
Emitter-base breakdown voltage	ВVево	6	-	-		Iε=10μA
Collector cut-off current	Ісво	-	-	100	nA	Vcb=30V
Emitter cut-off current	Іево	-	-	100		VEB=6V
Collector-emitter saturation voltage	VCE(sat) *	-	180	370	mV	Ic/Iв=1.5А/75mA
DC current gain	hfe	270	-	680	-	Vce=2V, Ic=200mA
Transition frequency	f⊤	-	280	-	MHz	Vce=2V, Ie= -200mA , f=100MHz
Collector output capacitance	Cob	-	20	-	pF	Vcb=10V , IE=0mA , f=1MHz

\* Pulsed

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# Transistors

#### Electrical characteristics curves 100 LECTOR SATURATION VOLTAGE : VCE (sat) (V) Vce=–2V Pulsed Vce= HIII /Ів=20 Ta=125℃ COLLECTOR CURRENT : Ic (A) Ta=25℃ Ta=125°( : hFE Ta= -25℃ Га=25℃ DC CURRENT GAIN : Та=-25 Ta=−25°C 0. 100 C 0.0 0.00 10 0.001 S 0.01 0. 0.0 BASE TO EMITTER CURRENT : VBE (V) COLLECTOR CURRENT : Ic (A) COLLECTOR CURRENT : Ic (A) Fig.1 Grounded emitter propagation Fig.2 DC current gain Fig.3 Collector-emitter saturation voltage characteristics base-emitter saturation voltage vs. collector current vs. collector current S (Fd) Га=25°С BASE SATURATION VOLTAGE : VBE(sat) =1MH TRANSITION FREQUENCY : fr (MHz) 'ce=–2V = 100MH COLLECTOR OUTPUT CAPACITANCE : Cob ( EMITTER INPUT CAPACITANCE : Cib (pF) ╫ 125 ## Ħ 0.00 0.0 COLLECTOR TO BASE VOLTAGE : VCB (V) EMITTER TO BASE VOLTAGE : VEB (V) COLLECTOR CURRENT : Ic (A) EMITTER CURRENT : IE (A) Fig.4 Base-emitter saturation voltage Fig.6 Collector output chapacitance Fig.5 Gain bandwidth product vs. collector current vs. emitter current vs. collector-base voltage

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Emitter input capacitance vs. emitter-base voltage



# Appendix

### Notes

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