DESCRIPTION

The 2SC2783 is available in SOT89-3 packages.

APPLICATIONS

- Switching and amplifying in various electrical and electronic circuit.

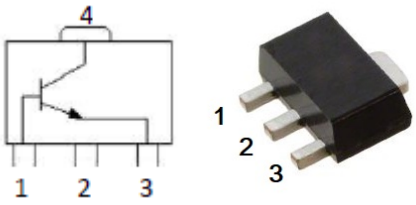
ORDERING INFORMATION

Package Type	Part Number
SOT89-3	2SC2783
Note	SPQ: 1,000pcs/Reel
AiT provides all RoHS products	

CLASSIFICATION OF h_{FE}

Part Number	h_{FE} Range
2SC2783-O	70~140
2SC2783-Y	120~240

PIN DESCRIPTION



SOT89-3

Pin	PIN DESCRIPTION
1	BASE
2	COLLECTOR
3	EMITTER

ABSOLUTE MAXIMUM RATINGS

V_{CEO}, Collector-emitter voltage(I_B=0)	25V
V_{CBO}, Collector-base voltage(I_E=0)	40V
V_{EBO}, Emitter-base voltage(I_C=0)	6A
I_C, Collector current	1.5A
P_{tot}, Total dissipation power(TA=25℃)*	1W
T_{jm}, Jumction temperature	150℃
T_{stg}, Storage temperature	-55℃~+150℃

Stresses above may cause permanent damage to the device. These are stress ratings only and functional operation of the device at these or any other conditions beyond those indicated in the Electrical Characteristics are not implied. Exposure to absolute maximum rating conditions for extended periods may affect device reliability.

*Device is mounted on a printed circuit board.

ELECTRICAL CHARACTERISTICS

T_A = 25°C, Unless otherwise specified

Parameter		Symbol	Conditions	Min.	Typ.	Max.	Unit
Collector-emitter breakdown voltage		$V_{(BR)CEO}$	I_C=2mA , I_B=0	25	-	-	V
Collector-base breakdown voltage		$V_{(BR)CBO}$	I_C=100μA, I_E= 0	40	-	-	V
Emitter-base breakdown voltage		$V_{(BR)EBO}$	I_E=100μA , I_C=0	6	-	-	V
Forward current transfer ratio	O	h_{FE}	V_{CE} =1V, I_C=100mA	70	-	140	-
	Y			120	-	240	-
Collector-base current		I_{CBO}	V_{CB}= 35V, I_E=0	-	-	100	nA
Collector-emitter saturation voltage		$V_{CE(sat)}$	I_C=800mA, I_B=80mA	-	-	0.5	V
Characteristic frequency		f_T	I_C=50mA , V_{CE}=10V, f=100MHz	-	100	-	MHz

TYPICAL PERFORMANCE CHARACTERISTICS

Fig 1. Forward Characteristics

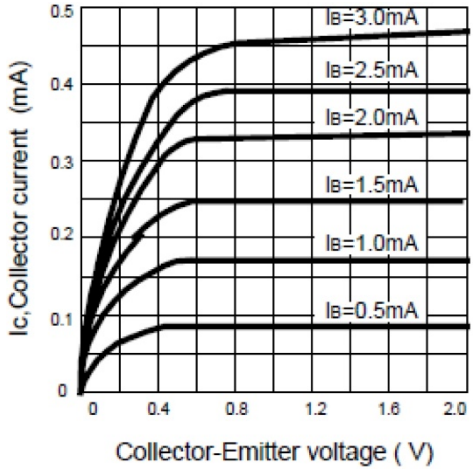


Fig 2. Reverse Characteristics

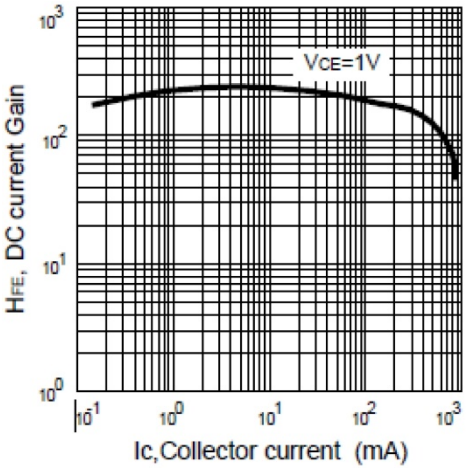


Fig 3. Peak Forward Current Derating

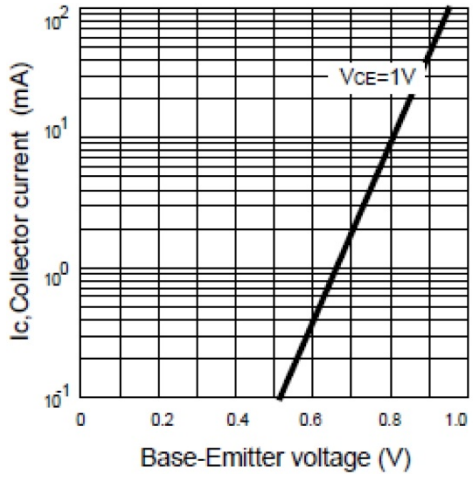


Fig 4. Power Dissipation

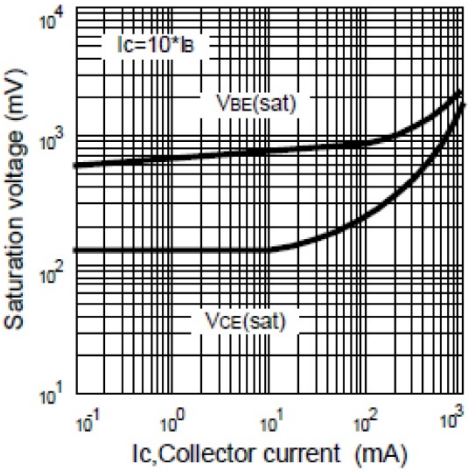


Fig 5. Capacitance vs. Reverse Voltage

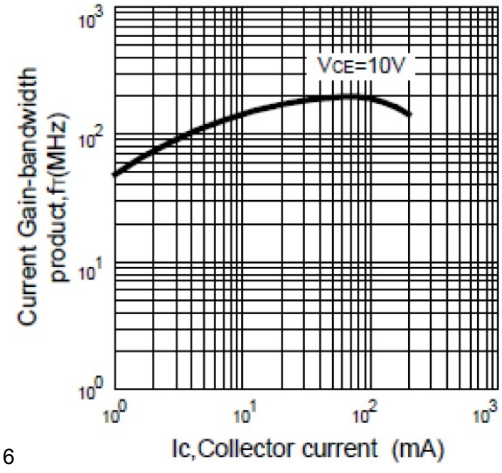
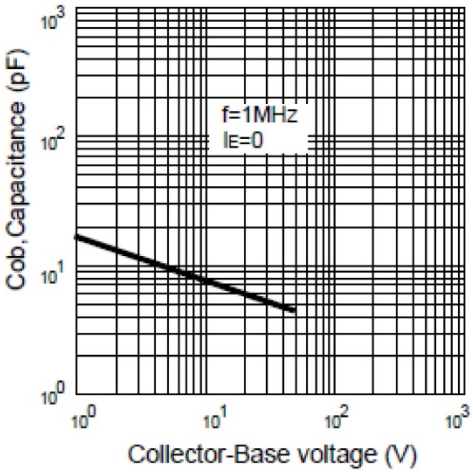
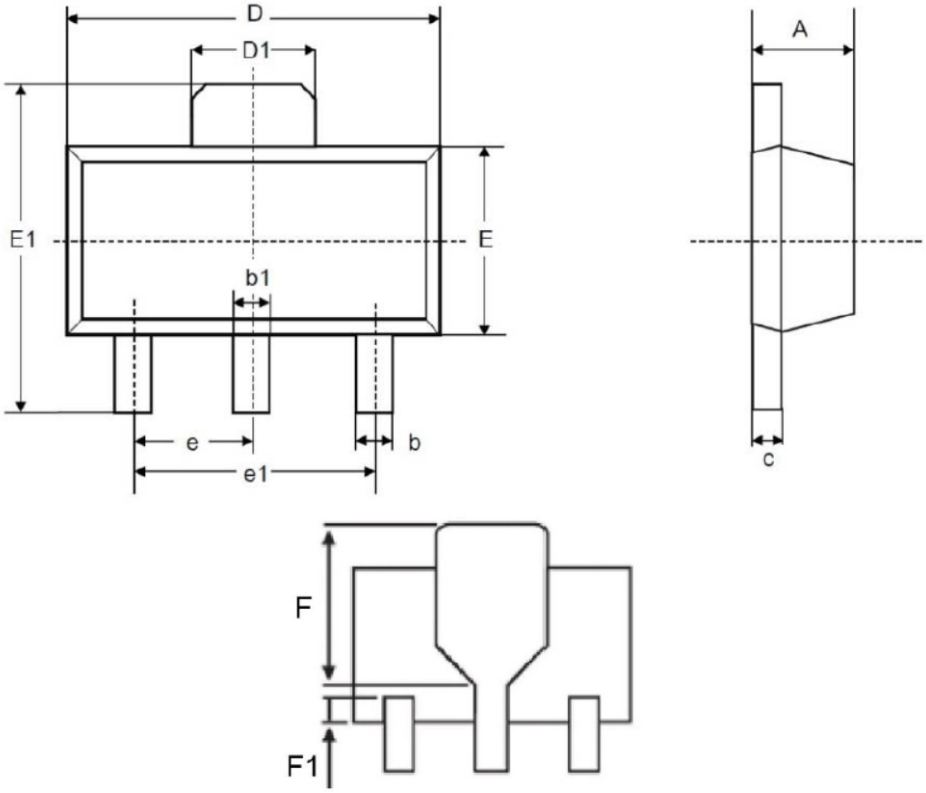


Fig 6. Capacitance Charge vs. Reverse Voltage



PACKAGE INFORMATION

Dimension in SOT89-3 (Unit: mm)



Symbol	Min.	Max.
A	1.400	1.600
b	0.350	0.550
b1	0.400	0.650
c	0.350	0.450
D	4.400	4.600
D1	1.600	
E	2.400	2.550
E1	4.150	
F	2.700	
F1	0.300	0.500
e	1.400	1.600
e1	2.900	3.100

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