



2SC2411K

NPN GENERAL PURPOSE SWITCHING TRANSISTOR

VOLTAGE	32 Volts	POWER	225mW	SOT-23	Unit: inch (mm)
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FEATURES

- NPN epitaxial silicon, planar design
- Collector-emitter voltage $V_{CE}=32V$
- Collector current $I_C=500mA$
- In compliance with EU RoHS 2002/95/EC directives

MECHANICAL DATA

Case : SOT-23 plastic
 Terminals : Solderable per MIL-STD-750, Method 2026
 Approx Weight : 0.008 gram
 Marking : 241

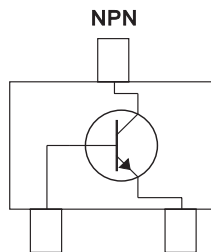
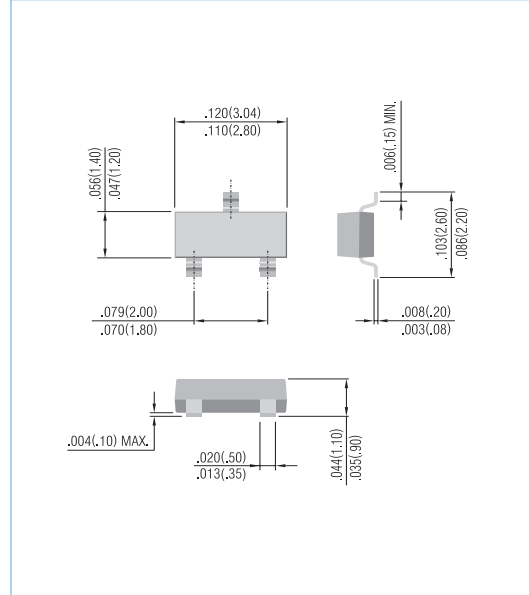


Fig.34



ABSOLUTE RATINGS ($T_A=25^{\circ}C$)

Parameter	Symbol	Value	Units
Collector-Emitter Voltage	V_{CEO}	32	V
Collector-Base Voltage	V_{CBO}	40	V
Emitter-Base Voltage	V_{EBO}	5	V
Collector Current Continuous	I_C	500	mA

THERMAL CHARACTERISTICS

Parameter	Symbol	Value	Units
Max. Power Dissipation (Note 1)	P_{TOT}	225	mW
Thermal Resistance, Junction to Ambient	$R_{\theta JA}$	556	$^{\circ}C/W$
Junction Temperature	T_J	-55 to +150	$^{\circ}C$
Storage Temperature	T_{STG}	-55 to +150	$^{\circ}C$

NOTE : 1. Transistor mounted on FR-4 board 70 x 60 x 1mm



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ELECTRICAL CHARACTERISTICS(T_A=25°C)

Parameter	Symbol	Conditions	Min.	Typ.	Max.	Units
Collector-Base Breakdown Voltage	V _{(BR)CBO}	I _C =100 μA	40	-	-	V
Collector-Emitter Breakdown Voltage	V _{(BR)CEO}	I _C =1mA	32	-	-	V
Emitter-Base Breakdown Voltage	V _{(BR)EBO}	I _E =100μA	5	-	-	V
Collector Cutoff Current	I _{CBO}	V _{CB} =20V	-	-	1	μA
Emitter Cutoff Current	I _{EBO}	V _{EB} =4V	-	-	1	μA
DC Current Gain (Note 2)	h _{FE}	V _{CE} =3V, I _C =100mA	120	-	390	-
Collector-Emitter Saturation Voltage	V _{CE(SAT)}	I _C =500mA, I _B =50mA	-	-	0.6	V
Transition Frequency	f _T	V _{CE} =5V, I _E =-200mA, f=100MHz	-	250	-	MHz
Collector-Base Capacitance	C _{ob}	V _{CB} =10V, I _E =0A, f=1MHz	-	6.5	-	pF

NOTE : 2.Pulse Test : Pulse width < 300μs, duty cycle < 2.0%



ELECTRICAL CHARACTERISTICS CURVE

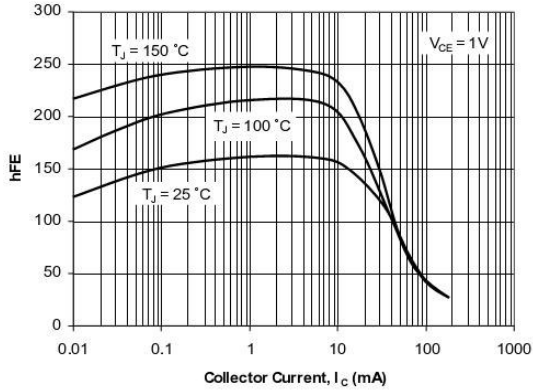


Fig. 1. Typical h_{FE} vs Collector Current

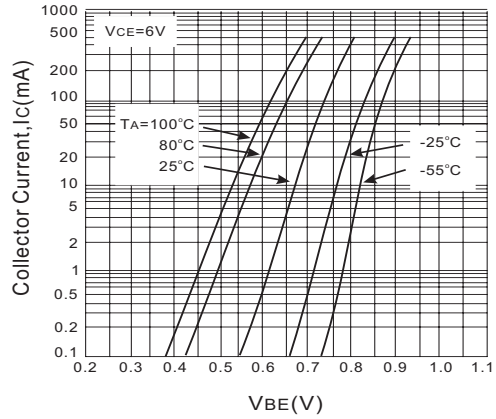


Fig. 2. Typical V_{BE} vs Collector Current

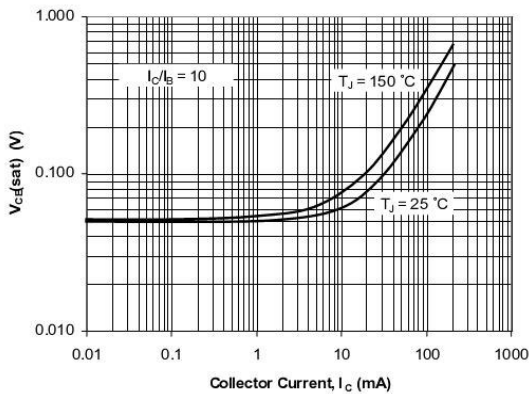


Fig. 3. Typical $V_{CE(SAT)}$ vs Collector Current

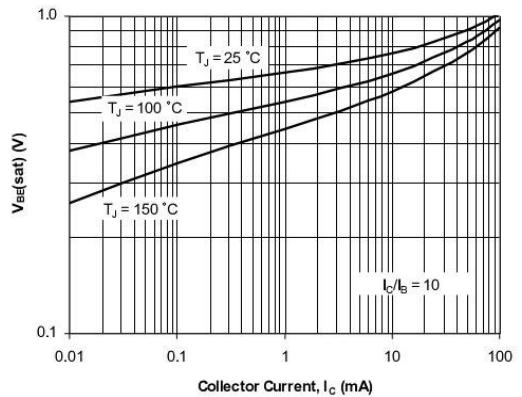


Fig. 4. Typical $V_{BE(SAT)}$ vs Collector Current

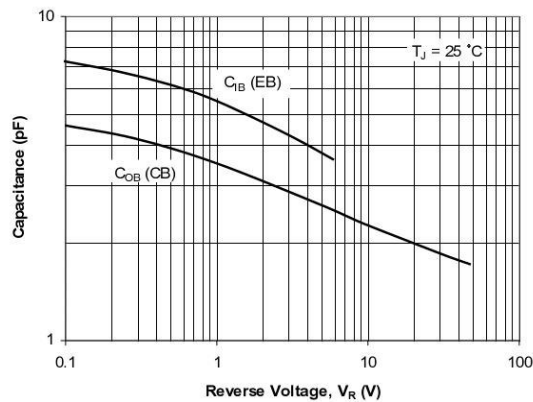
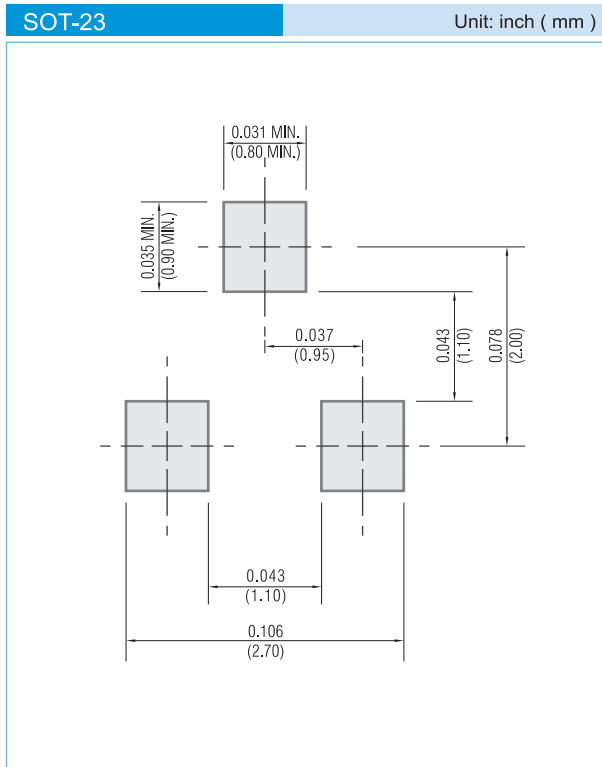


Fig. 5. Typical Capacitances vs Reverse Voltage



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MOUNTING PAD LAYOUT



ORDER INFORMATION

- Packing information
 - T/R - 12K per 13" plastic Reel
 - T/R - 3K per 7" plastic Reel

LEGAL STATEMENT

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