

2SC2411K-AU

NPN GENERAL PURPOSE SWITCHING TRANSISTOR

VOLTAGE	32 Volt	POWER	225 mW
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SOT-23

Unit : inch(mm)

FEATURES

- NPN epitaxial silicon, planar design
- Collector-emitter voltage $V_{CE}=32V$
- Collector current $I_C=500mA$
- Acquire quality system certificate : TS16949
- AEC-Q101 qualified
- Lead free in compliance with EU RoHS2.0 (2011/65/EU & 2015/865/EU directive)
- Green molding compound as per IEC61249 Std. . (Halogen Free)

MECHANICAL DATA

Case : SOT-23 plastic

Terminals : Solderable per MIL-STD-750, Method 2026

Approx Weight : 0.0003 ounces, 0.0084 grams

Marking : 241

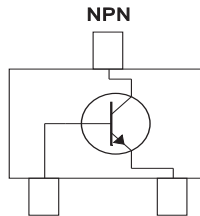
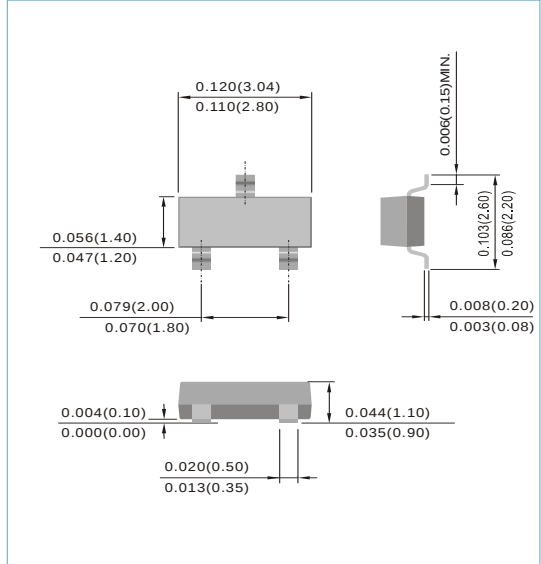


Fig.34



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 Temperation	T_J	-55 to +150	$^\circ C$
Storage Temperation	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($T_A=25^{\circ}\text{C}$)

Parameter	Symbol	Conditions	Min.	Typ.	Max.	Units
Collector-Base Breakdown Voltage	$V_{(BR)CBO}$	$I_C=100\mu\text{A}$	40	-	-	V
Collector-Emitter Breakdown Voltage	$V_{(BR)CEO}$	$I_C=1\text{mA}$	32	-	-	V
Emitter-Base Breakdown Voltage	$V_{(BR)EBO}$	$I_E=100\mu\text{A}$	5	-	-	V
Collector Cutoff Current	I_{CBO}	$V_{CB}=20\text{V}$	-	-	1	μA
Emitter Cutoff Current	I_{EBO}	$V_{EB}=4\text{V}$	-	-	1	μA
DC Current Gain (Note 2)	h_{FE}	$V_{CE}=3\text{V}, I_C=100\text{mA}$	120	-	390	-
Collector-Emitter Saturation Voltage	$V_{CE(SAT)}$	$I_C=500\text{mA}, I_B=50\text{mA}$	-	-	0.6	V
Transition Frequency	f_T	$V_{CE}=5\text{V}, I_E=-200\text{mA}, f=100\text{MHz}$	-	250	-	MHz
Collector-Base Capacitance	C_{ob}	$V_{CB}=10\text{V}, I_E=0\text{A}, f=1\text{MHz}$	-	6.5	-	pF

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

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ELECTRICAL CHARACTERISTICS CURVE

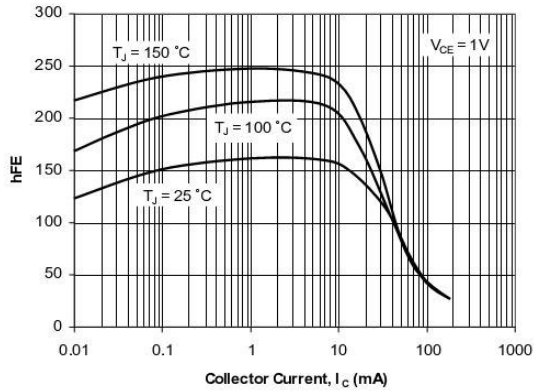


Fig. 1. Typical h_{FE} vs Collector Current

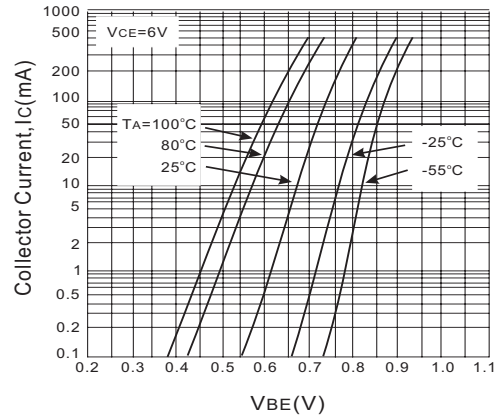


Fig. 2. Typical V_{BE} vs Collector Current

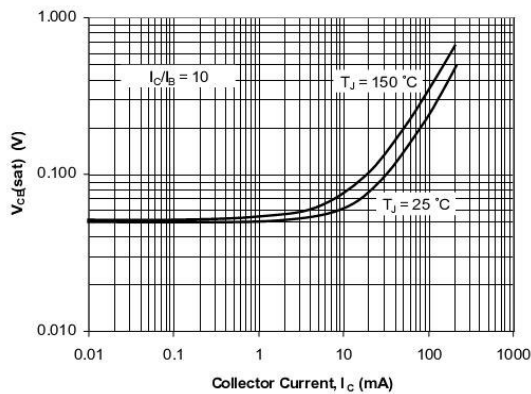


Fig. 3. Typical $V_{CE(SAT)}$ vs Collector Current

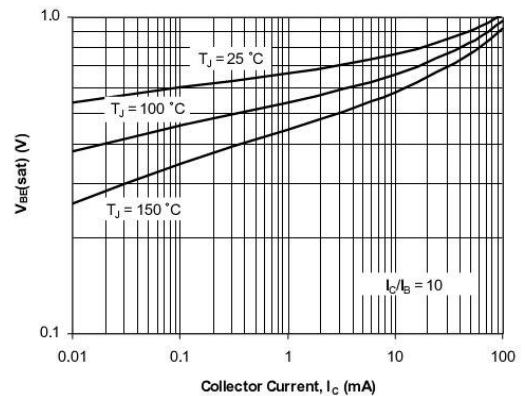


Fig. 4. Typical $V_{BE(SAT)}$ vs Collector Current

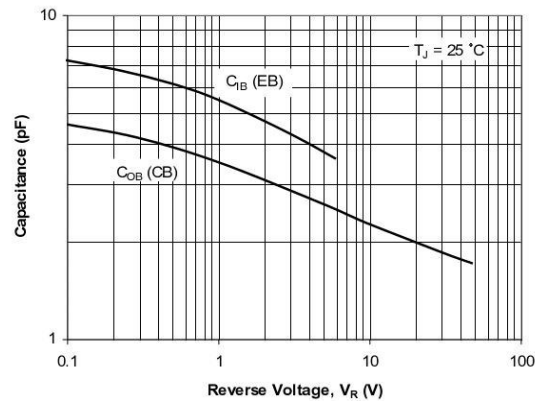
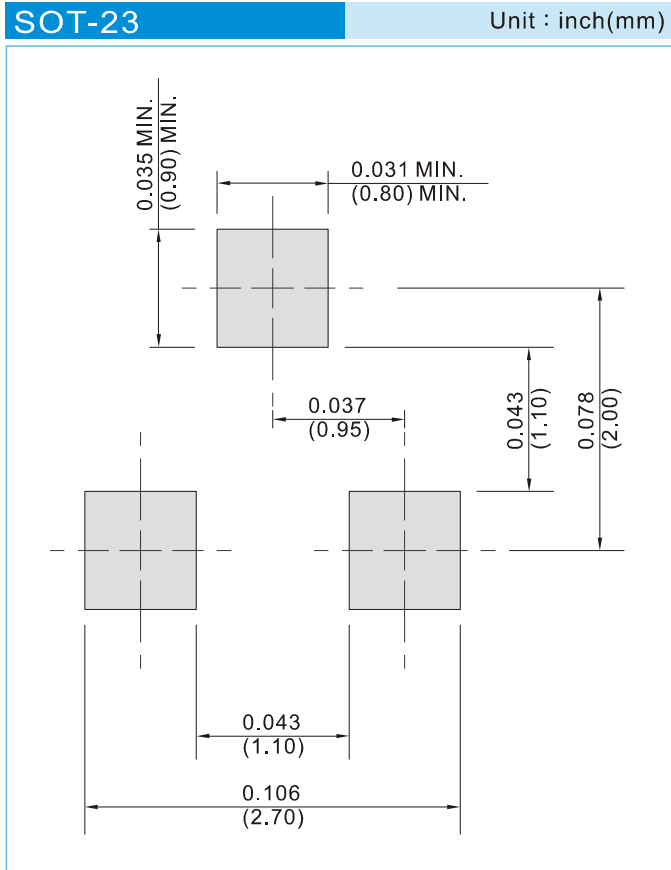


Fig. 5. Typical Capacitances vs Reverse Voltage

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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

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Part No_packing code_Version

2SC2411K-AU_R1_000A1

2SC2411K-AU_R2_000A1

For example :

RB500V-40_R2_00001

Part No.

Serial number

Version code means HF

Packing size code means 13"

Packing type means T/R

Packing Code XX				Version Code XXXXX		
Packing type	1 st Code	Packing size code	2 nd Code	HF or RoHS	1 st Code	2 nd ~5 th Code
Tape and Ammunition Box (T/B)	A	N/A	0	HF	0	serial number
Tape and Reel (T/R)	R	7"	1	RoHS	1	serial number
Bulk Packing (B/P)	B	13"	2			
Tube Packing (T/P)	T	26mm	X			
Tape and Reel (Right Oriented) (TRR)	S	52mm	Y			
Tape and Reel (Left Oriented) (TRL)	L	PANASERT T/B CATHODE UP (PBCU)	U			
FORMING	F	PANASERT T/B CATHODE DOWN (PBCD)	D			



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