

PJSOT24C-05-AU ~ PJSOT36C-05-AU Series

Hi-Surge ESD Protection

Voltage 24 ~ 36 V

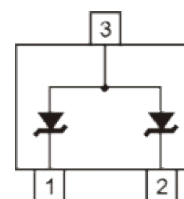
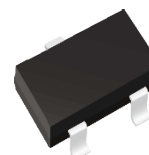
Features

- IEC61000-4-2(ESD): $\pm 15\text{kV}$ Air, $\pm 8\text{kV}$ Contact Compliance with the capability up to $\pm 30\text{kV}$
- IEC61000-4-4(EFT): 80A(5/50ns)
- IEC61000-4-5(Lightning): 9A ~ 12A (8/20 μs)
- Low clamping voltage
- AEC-Q101 qualified
- Lead free in compliance with EU RoHS 2.0
- Green molding compound as per IEC 61249 standard

Mechanical Data

- Case : SOT-23 Package
- Terminals : Solderable per MIL-STD-750, Method 2026
- Approx. Weight : 0.0003 ounces, 0.0084 grams

SOT-23



Maximum Ratings and Thermal Characteristics ($T_A = 25^\circ\text{C}$ unless otherwise noted)

PARAMETER	SYMBOL	LIMIT	UNITS
ESD IEC61000-4-2(Air)	V_{ESD}	± 30	kV
ESD IEC61000-4-2(Contact)		± 30	
Typical Thermal Resistance ^(Note 1)	$R_{\theta\text{JA}}$	350	$^\circ\text{C/W}$
Operating Junction Temperature Range	T_J	-55~150	$^\circ\text{C}$
Storage Temperature Range	T_{STG}	-55~150	$^\circ\text{C}$



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Electrical Characteristics ($T_A = 25^\circ\text{C}$ unless otherwise noted)

PJSOT24C-05-AU						
PARAMETER	SYMBOL	TEST CONDITION	MIN.	TYP.	MAX.	UNITS
Reverse Stand-Off Voltage ^(Note 2)	V_{RWM}	-	-	-	24	V
Reverse Breakdown Voltage	V_{BR}	$I_{BT} = 1\text{mA}$	26.7	-	29.4	V
Reverse Leakage Current	I_R	$V_R = 24\text{V}$	-	-	1	μA
Clamping Voltage	V_{CL}	$I_{PP} = 1\text{A}, t_P = 8/20\mu\text{s}$	-	-	35	V
		$I_{PP} = 12\text{A}, t_P = 8/20\mu\text{s}$	-	-	43	V
Off State Junction Capacitance	C_J	0Vdc Bias $f = 1\text{MHz}$	-	-	150	pF

PJSOT36C-05-AU						
PARAMETER	SYMBOL	TEST CONDITION	MIN.	TYP.	MAX.	UNITS
Reverse Stand-Off Voltage ^(Note 2)	V_{RWM}	-	-	-	36	V
Reverse Breakdown Voltage	V_{BR}	$I_{BT} = 1\text{mA}$	40	-	44.1	V
Reverse Leakage Current	I_R	$V_R = 36\text{V}$	-	-	1	μA
Clamping Voltage	V_{CL}	$I_{PP} = 1\text{A}, t_P = 8/20\mu\text{s}$	-	-	53	V
		$I_{PP} = 9\text{A}, t_P = 8/20\mu\text{s}$	-	-	75	V
Off State Junction Capacitance	C_J	0Vdc Bias $f = 1\text{MHz}$	-	-	100	pF

NOTES :

1. Mounted on a FR4 PCB, single-sided copper, standard footprint
2. A transient suppressor is selected according to the working peak reverse voltage(V_{RWM}), which should be equal to or greater than the DC or continuous peak operation voltage level

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TYPICAL CHARACTERISTIC CURVES

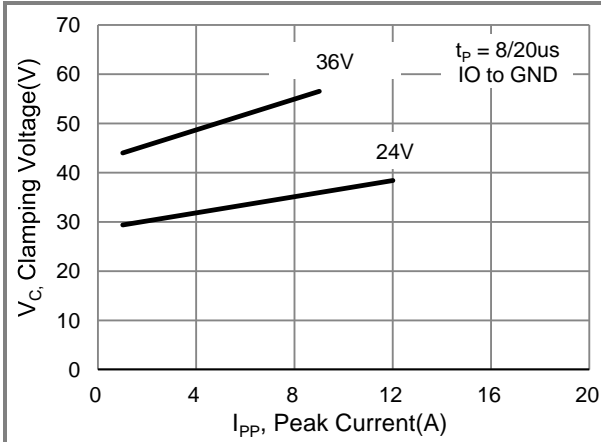


Fig.1 Typical Peak Clamping Voltage

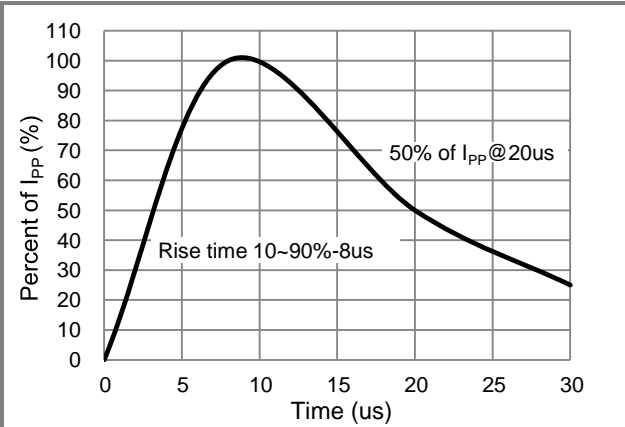


Fig.2 Pulse Waveform

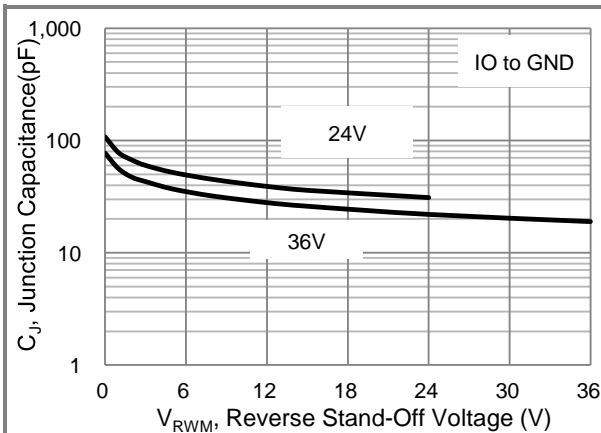


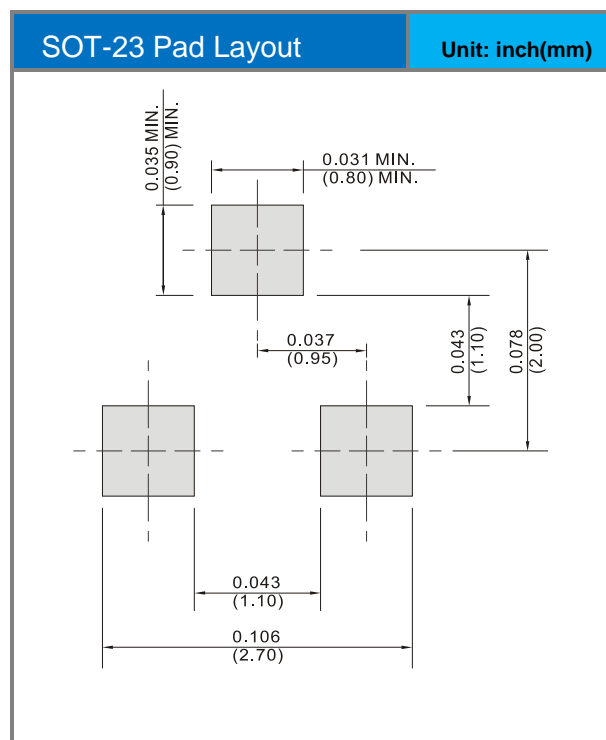
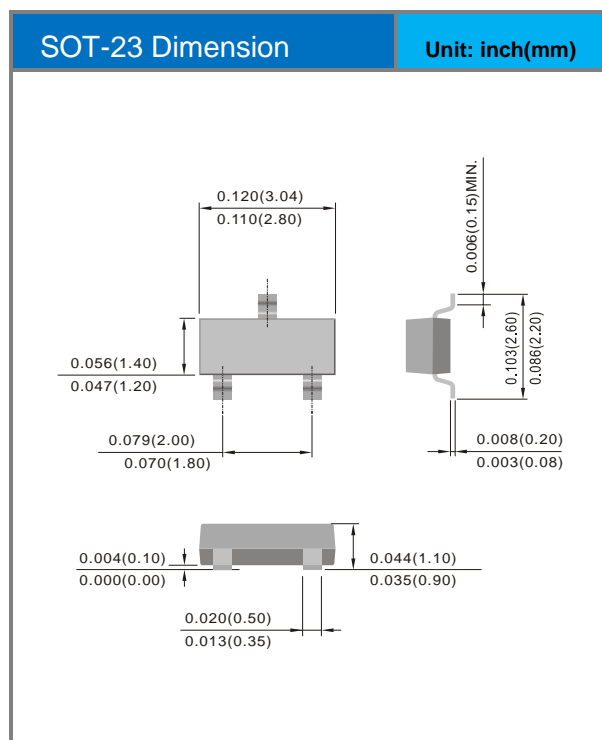
Fig.3 Typical Junction Capacitance

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Part No. Packing Code Version

Part No. Packing Code	Package Type	Packing Type	Marking	Version
PJSOT24C-05-AU_R1_000A1	SOT-23	3K pcs / 7" reel	6EC	Halogen free RoHS compliant
PJSOT36C-05-AU_R1_000A1	SOT-23	3K pcs / 7" reel	7EC	Halogen free RoHS compliant

Packaging Information & Mounting Pad Layout





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