

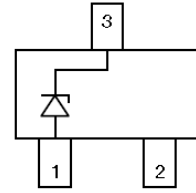
Features

- Transient Protection For Data&Power Lines to IEC 61000-4-2(ESD) ± 15 kV (air), ± 8 kV (contact)
- Working voltage: 3V, 5V, 12V, 15V, 24V, 36V.
- Single-line ESD Protection Device.

HF

Mechanical Data

- Case: SOT-23.
- Molding compound, UL flammability classification rating 94V-0.
- Terminals: Tin plated leads, solderable per MIL-STD-202, Method 208.



SOT-23

Ordering Information

Part Number	Package	Shipping	Marking Code
PJSOT03	SOT-23	3000/Tape Reel	J03
PJSOT05	SOT-23	3000/Tape Reel	J05
PJSOT12	SOT-23	3000/Tape Reel	J12
PJSOT15	SOT-23	3000/Tape Reel	J15
PJSOT24	SOT-23	3000/Tape Reel	J24
PJSOT36	SOT-23	3000/Tape Reel	J36

Maximum Ratings (@T_A=25°C unless otherwise specified)

Characteristic	Symbol	Value	Units
ESD according to IEC61000-4-2 air discharge	V _{ESD}	± 15	KV
ESD according to IEC61000-4-2 contact discharge		± 8	
ESD Voltage (HBM)		>25	
Peak Pulse Power 8/20 μ s Waveform	P _{PP}	500	W

Thermal Characteristics

Parameter	Symbol	Value	Units
Junction temperature	T _J	-55 to +125	°C
Storage temperature range	T _{STG}	-55 to +150	°C

Electrical Characteristics (@T_A=25℃ unless otherwise specified between pin 3 and pin 1)

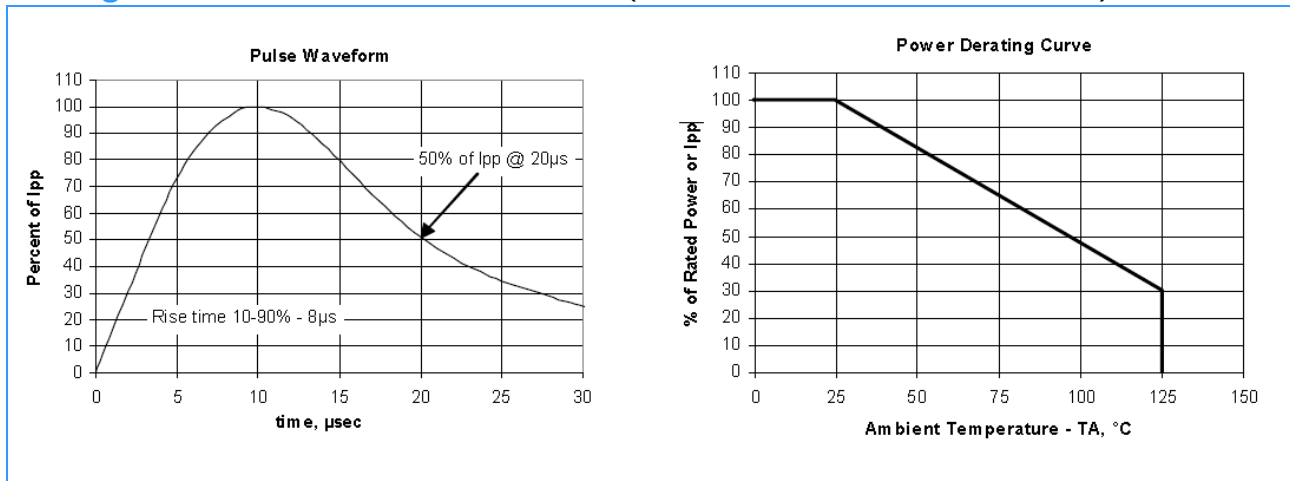
PJSOT03 TVS for 3V Lines						
Parameter	Symbol	Test conditions	Min.	Typ.	Max.	Units
Peak Pulse Current	I _{PPM}	Pin 3 to 1, tp = 8/20 μs; single shot	-	-	30	A
Reverse Stand-off Voltage	V _{RWM}		-	-	3	V
Reverse Breakdown Voltage	V _{BR}	I _R =1 mA	5	-	6	V
Reverse Leakage Current	I _R	V _R =3V	-	-	1	uA
Clamping Voltage	V _C	I _{PP} =1A, tp=8/20us	-	-	7.5	V
		I _{PP} =30A, tp=8/20us	-	-	15	
Junction Capacitance	C _J	V _R = 0V, f = 1MHz	-	-	700	pF
PJSOT05 TVS for 5V Lines						
Parameter	Symbol	Test conditions	Min.	Typ.	Max.	Units
Peak Pulse Current	I _{PPM}	Pin 3 to 1, tp = 8/20 μs; single shot	-	-	30	A
Reverse Stand-off Voltage	V _{RWM}		-	-	5	V
Reverse breakdown voltage	V _{BR}	I _R = 1mA	6	-	-	V
Reverse leakage current	I _R	V _R =5V	-	-	1	uA
Clamping voltage	V _C	I _{PP} =1A, tp=8/20us	-	-	8.5	V
		I _{PP} =30A, tp=8/20us	-	-	17	
Junction capacitance	C _J	V _R = 0V, f = 1MHz	-	-	550	pF
PJSOT12 TVS for 12V Lines						
Parameter	Symbol	Test conditions	Min.	Typ.	Max.	Units
Peak Pulse Current	I _{PPM}	Pin 3 to 1, tp = 8/20 μs; single shot	-	-	24	A
Reverse Stand-off Voltage	V _{RWM}		-	-	12	V
Reverse breakdown voltage	V _{BR}	I _R = 1mA	13.3	-	-	V
Reverse leakage current	I _R	V _R =12V	-	-	1	uA
Clamping voltage	V _C	I _{PP} =1A, tp=8/20us	-	-	18	V
		I _{PP} =24A, tp=8/20us	-	-	25	
Junction capacitance	C _J	V _R = 0V, f = 1MHz	-	-	200	pF
PJSOT15 TVS for 15V Lines						
Parameter	Symbol	Test conditions	Min.	Typ.	Max.	Units
Peak Pulse Current	I _{PPM}	Pin 3 to 1, tp = 8/20 μs; single shot	-	-	20	A
Reverse Stand-off Voltage	V _{RWM}		-	-	15	V
Reverse breakdown voltage	V _{BR}	I _R = 1mA	16.7	-	-	V
Reverse leakage current	I _R	V _R =15V	-	-	1	uA
Clamping voltage	V _C	I _{PP} =1A, tp=8/20us	-	-	24	V
		I _{PP} =20A, tp=8/20us	-	-	30	
Junction capacitance	C _J	V _R = 0V, f = 1MHz	-	-	150	pF
PJSOT24 TVS for 24V Lines						
Parameter	Symbol	Test conditions	Min.	Typ.	Max.	Units
Peak Pulse Current	I _{PPM}	Pin 3 to 1, tp = 8/20 μs; single shot	-	-	14	A
Reverse Stand-off Voltage	V _{RWM}		-	-	24	V
Reverse breakdown voltage	V _{BR}	I _R = 1mA	26.7	-	-	V
Reverse leakage current	I _R	V _R =24V	-	-	1	uA

Clamping voltage	V_C	$I_{PP}=1A, t_p=8/20\mu s$	-	-	32	V
		$I_{PP}=14A, t_p=8/20\mu s$	-	-	42	
Junction capacitance	C_J	$V_R = 0V, f = 1MHz$	-	-	150	pF

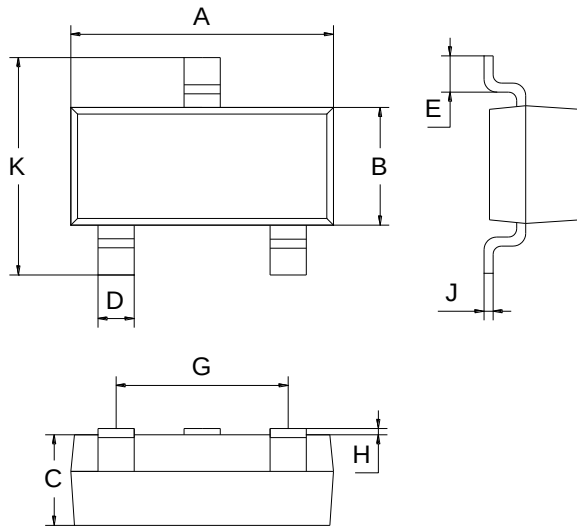
PJSOT36 TVS for 36V Lines

Parameter	Symbol	Test conditions	Min.	Typ.	Max.	Units
Peak Pulse Current	I_{PPM}	Pin 3 to 1, $t_p = 8/20 \mu s$; single shot	-	-	10	A
Reverse Stand-off Voltage	V_{RWM}		-	-	36	V
Reverse breakdown voltage	V_{BR}	$I_R = 1mA$	39	-	-	V
Reverse leakage current	I_R	$V_R = 36V$	-	-	1	μA
Clamping voltage	V_C	$I_{PP}=1A, t_p=8/20\mu s$	-	-	48	V
		$I_{PP}=10A, t_p=8/20\mu s$	-	-	60	
Junction capacitance	C_J	$V_R = 0V, f = 1MHz$	-	-	80	pF

Ratings and Characteristic Curves ($T_A=25^\circ C$ unless otherwise noted)

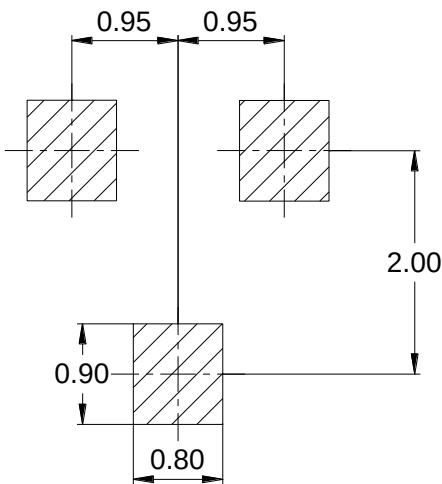


Package Outline Dimensions(unit:mm)



SOT-23		
Dim	Min	Max
A	2.70	3.10
B	1.10	1.50
C	0.90	1.10
D	0.30	0.50
E	0.35	0.48
G	1.80	2.00
H	0.02	0.10
J	0.05	0.15
K	2.20	2.60

Mounting Pad Layout(unit:mm)



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