Features

- Up to 2 lines protects
- Junction capacitance (Typ.value:60pF)
- Peak Pulse current (8/20μs) MAX：20A
- IEC61000-4-2 (ESD) ±30kV (air), ±30kV (contact)
- Low leakage current
- Working voltages:8V
- RoHS Compliant

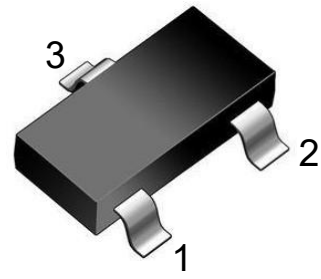
Mechanical Characteristics

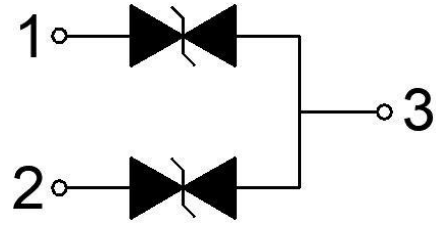
- Package: SOT-23
- Lead Finish:Matte Tin
- Case Material: “Green” Molding Compound.
- UL Flammability Classification Rating 94V-0
- Moisture Sensitivity: Level 3 per J-STD-020
- Tape Reel :3000pcs

Applications

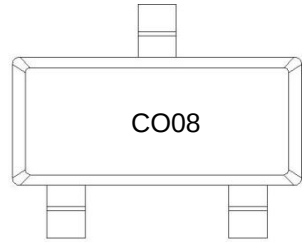
- Automotive Applications
- CAN Bus
- Electronic Control Units
- Body Control Units
- ADAS Control Units
- PowerTrain Control Unit

Appearance & Symbol





Marking Information



CO08 = Marking Code

Absolute Maximum Ratings (T=25ºC, RH=45%-75%, unless otherwise noted)

Parameters	Symbol	Value	Unit
Peak Pulse Power (tp=8/20μs waveform)	P_{PP}	500	W
Peak Pulse Current (8/20μs)	I_{PP}	20	A
ESD per IEC 61000−4−2 (Air) ESD per IEC 61000−4−2 (Contact)	V_{ESD}	±30 ±30	KV
Operating Temperature Range	T_J	−55 to +125	°C
Storage Temperature Range	Tstg	−55 to +150	°C

Electrical Characteristics (T=25ºC, RH=45%-75%, unless otherwise noted)

Parameter	Symbol	Test Condition	Min	Typ	Max	Unit
Reverse Working Voltage	V_{RWM}				8	V
Reverse Breakdown Voltage	$V_{(BR)R}$	I_R = 1mA	9		12	V
Reverse Leakage Current	I_R	V_R = 8V			1	uA
Clamping voltage	V_C	I_{PP} = 1A,T_P=8/20us,pin1 orpin2 to pin3			10	V
Clamping voltage	V_C	I_{PP} =20A,T_P=8/20us,pin1 orpin2 to pin3			25	V
Junction capacitance	C_J	V_R =0V,f =1MHz,between I/O pins,between pin1 and pin2		30	50	pF
Junction capacitance	C_J	V_R =0V,f =1MHz,any I/O pin to ground,between pin1 or pin2 to pin3		60	100	pF

Typical Characteristics

FIG1：Power rating derating curve

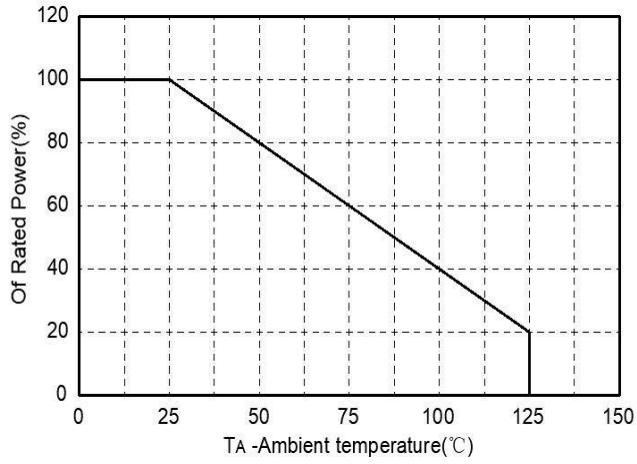


FIG2： pulse Waveform

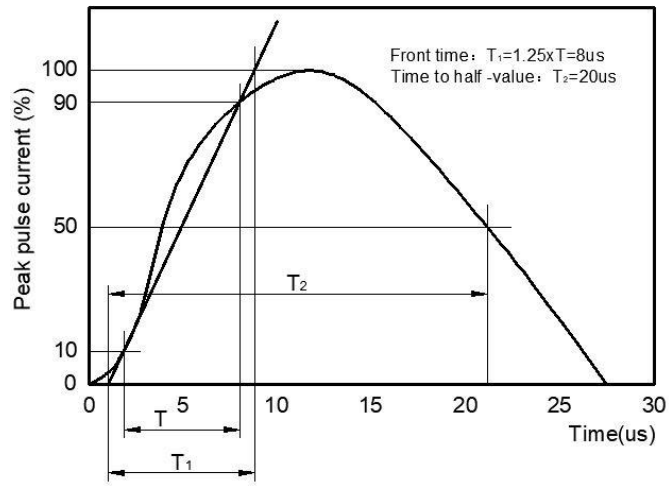


FIG3：Capacitance between teminals charateristics

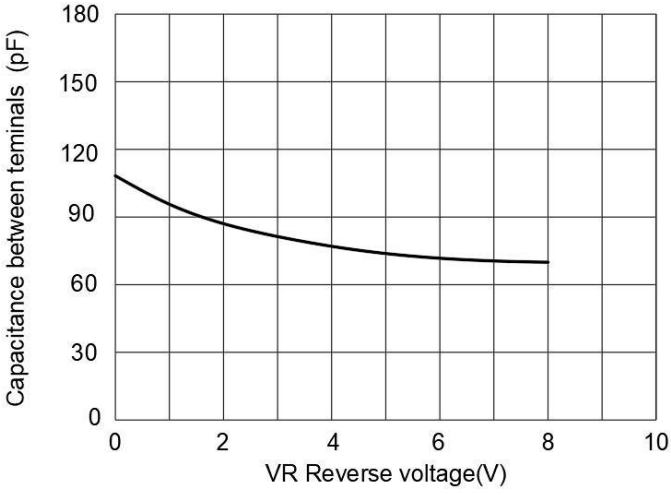
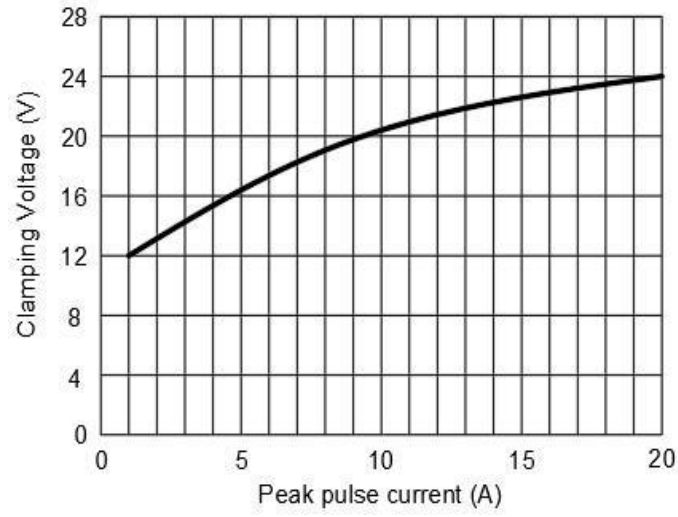
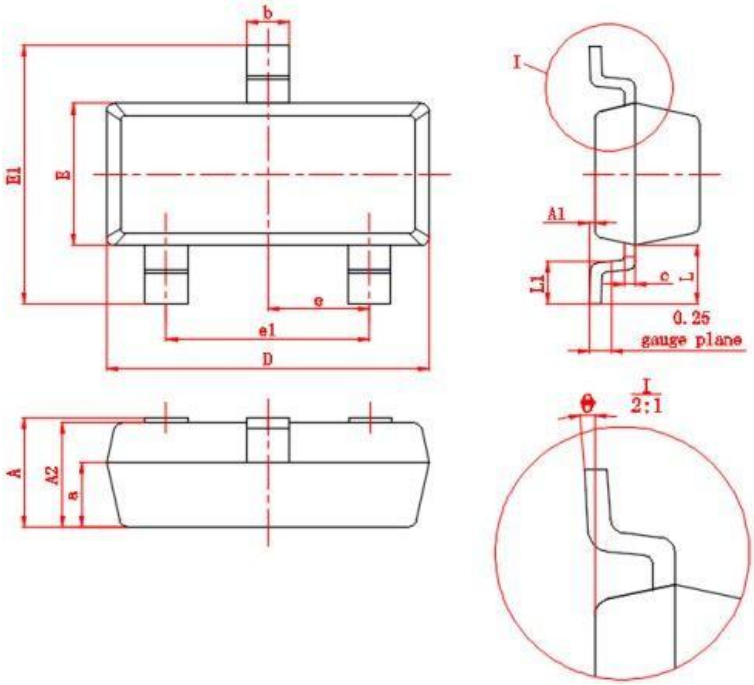


FIG4: Clamping Voltage vs. Peak Pulse Current

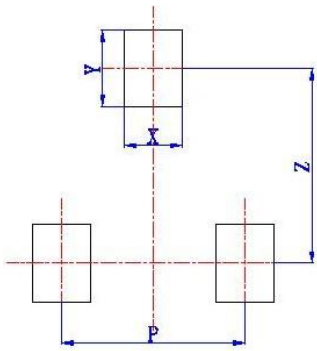


Package mechanical data



Symbol	Dimensional	
	Millimeters	
	min	max
A	0.9	1.15
A1	0	0.1
A2	0.9	1.05
a	(0.6)	
D	2.8	3.0
E	1.2	1.4
E1	2.25	2.55
e	(0.95)	
e1	1.8	2.0
b	0.3	0.5
c	0.08	0.15
L	(0.55)	
L1	0.3	0.5
θ	0°	8°

Suggested Land Pattern



Symbol	Dimensional
	Millimeters
X	(0.6)
Y	(0.8)
Z	(2.02)
P	(1.9)