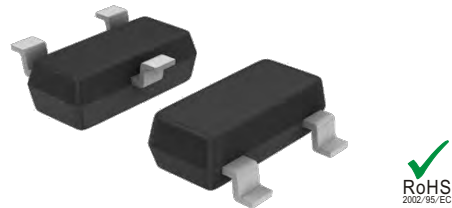


Features

- Up to 2 lines protects
- Junction capacitance (Max value: 0.8pF)
- Peak Pulse current (8/20 μ s) MAX: 5A
- Low leakage current
- Working voltages: 5V
- RoHS compliant



IEC Compatibility (EN61000-4)

- IEC 61000-4-2 ± 20 kV (contact), ± 25 kV (air)
- IEC 61000-4-5 (Lightning) 5A (8/20 μ s)

SOT-23

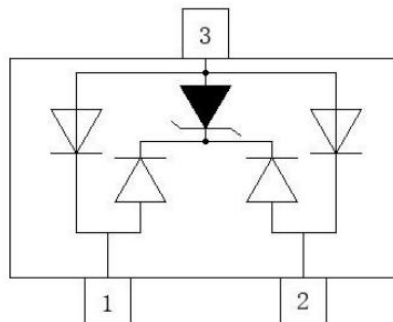
Applications

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

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

Schematic & PIN Configuration



Circuit Diagram

Absolute Maximum Ratings

Parameter	Symbol	Value	Unit
Peak Pulse Power ($t_p = 8/20\mu s$ waveform)	P_{PP}	80	W
Peak Pulse Current (8/20 μs)	I_{PP}	5	A
ESD per IEC 61000-4-2 (Air) ESD per IEC 61000-4-2 (Contact)	V_{ESD}	± 25 ± 20	kV
Operating Temperature Range	T_J	-55 to +125	°C
Storage Temperature Range	T_{STG}	-55 to +150	°C

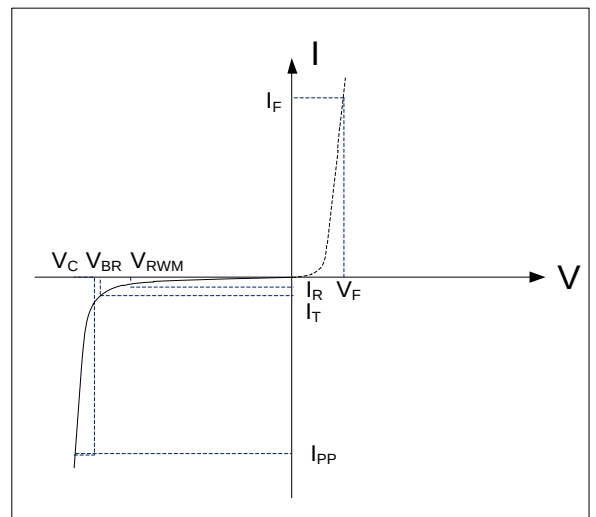
Electrical Characteristics

Parameter	Symbol	Test Condition	Min	Typ	Max	Unit
Reverse Working Voltage	V_{RWM}				5	V
Breakdown Voltage	V_{BR}	$I_T = 1mA$	6		9	V
Reverse Leakage Current	I_R	$V_{RWM} = 5V$			0.2	μA
Clamping Voltage	V_C	$I_{PP} = 1A, T_P = 8/20\mu s$, Pin1 or pin2 to pin3			9	V
Clamping Voltage	V_C	$I_{PP} = 5A, T_P = 8/20\mu s$, Pin1 or pin2 to pin3			16	V
Junction Capacitance	C_J	$V_R = 0V, f = 1MHz$, Between I/O pins, Between pin 1 and pin 2		0.3	0.4	pF
Junction Capacitance	C_J	$V_R = 0V, f = 1MHz$, any I/O pin to Gnd, Between pin1 or pin2 to pin3		0.6	0.8	pF

Electrical Parameters (T=25°C)

Symbol	Parameter
I_{PP}	Maximum Reverse Peak Pulse Current
V_C	Clamping Voltage @ I_{PP}
V_{RWM}	Working Peak Reverse Voltage
I_R	Maximum Reverse Leakage Current @ V_{RWM}
V_{BR}	Breakdown Voltage @ I_T
I_T	Test Current

Note.: 8/20 μs pulse waveform.



Typical Performance Characteristics (TA=25°C unless otherwise Specified)

FIG1: Power Rating Derating Curve

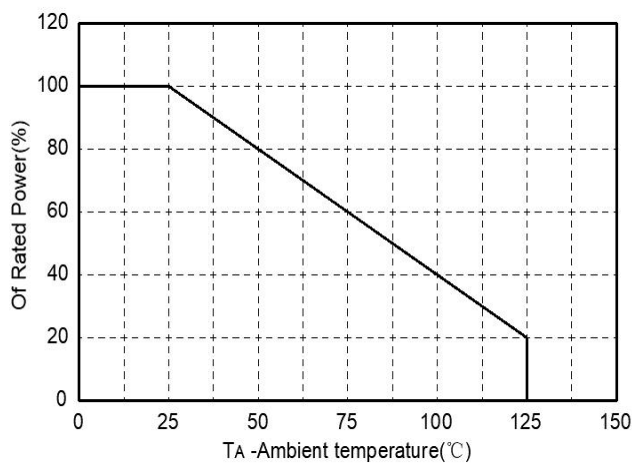


FIG2: Pulse Waveform

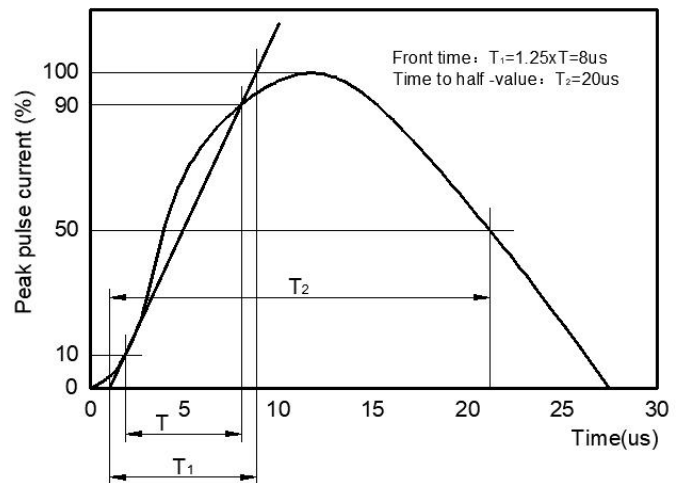


FIG3: Capacitance Between Terminals Characteristics

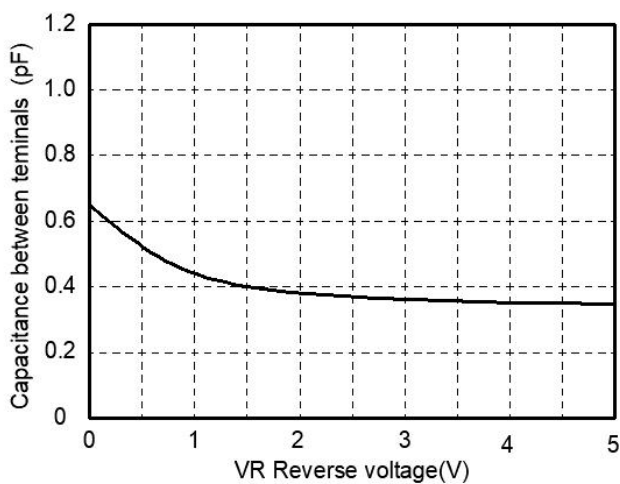
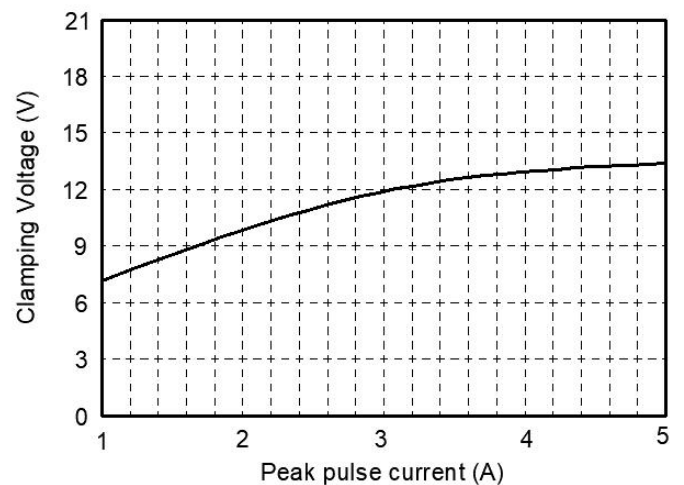
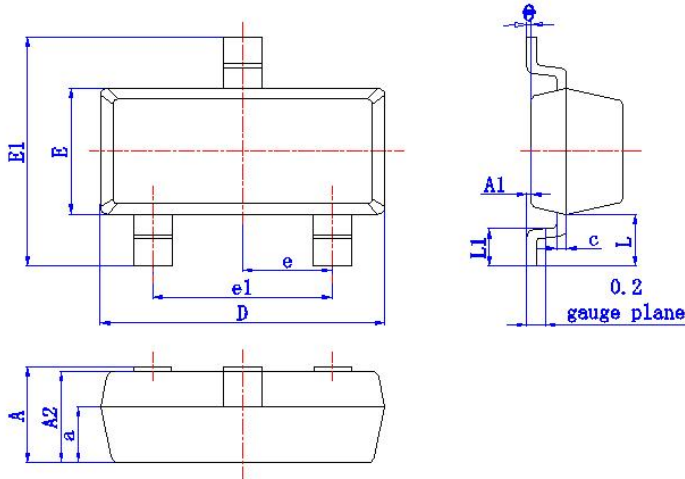


FIG4: Clamping Voltage vs. Peak Pulse Current

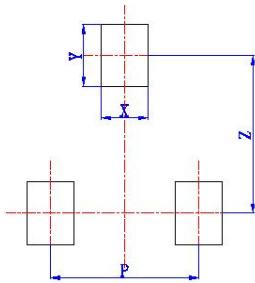


Package Mechanical Data



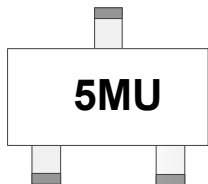
SYM	DIMENSIONS	
	MILLIMETERS	
	MIN	MAX
A	0.90	1.15
A1	0	0.10
A2	0.90	1.05
a	0.60REF	
D	2.80	3.00
E	1.20	1.40
E1	2.25	2.55
e	0.95REF	
e1	1.80	2.00
b	0.30	0.50
c	0.08	0.15
L	0.55REF	
L1	0.30	0.50
θ	0°	8°

Suggested Land Pattern



SYM	DIMENSIONS
	MILLIMETERS
X	(0.60)
Y	(0.80)
Z	(2.02)
P	(1.90)

Marking



5MU= Marking Code

Ordering Information

Order code	Package	Base qty	Delivery mode
PTT233L08S5CA8	SOT-23	3K	Tape and reel