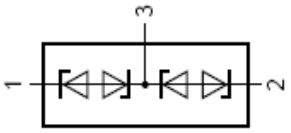
TPESD2CAN

Features

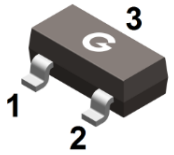
- ESD / transient protection of high speed data lines
  - IEC 61000-4-2 (ESD): ±30 kV (air), ±30 kV (contact)
- Working voltage: V_{RWM} = 24V
- Low reverse clamping voltage
- Halogen free
- Qualified to AEC-Q101 standards for high reliability

HF



Typical Applications

- Automotive applications



Mechanical Data

- Case: SOT-23
- Molding Compound: UL Flammability Classification Rating 94V-0
- Terminals: Matte tin-plated leads; solderability-per MIL-STD-202, Method 208

SOT-23

Ordering Information

Part Number	Package	Shipping Quantity	Marking Code
TPESD2CAN	SOT-23	3000pcs / Tape & Reel	6R

Maximum Ratings (@ T_A = 25℃ unless otherwise specified)

Parameter	Symbol	Value	Unit
IEC 61000-4-2; ESD (Air)	V_{ESD-A}	±30	kV
IEC 61000-4-2; ESD (Contact)	V_{ESD-C}	±30	kV
JESD22-A114-B; ESD (Human Body) *1	V_{ESD-HB}	±16	kV
JESD22-A114-B; ESD (Machine) *1	V_{ESD-M}	±0.4	kV
Peak Pulse Power (t_p = 8/20μs)	P_{PP}	230	W
Peak Pulse Current (t_p = 8/20μs)	I_{PP}	5	A
ISO 7637-3; Pulse 3a	Vs	-150	V
ISO 7637-3; Pulse 3b	Vs	+100	V

Thermal Characteristics

Parameter	Symbol	Value	Unit
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)

Parameter	Symbol	Test Condition	Min.	Typ.	Max.	Unit
Reverse Stand-off Voltage	V_{RWM}		-	-	24	V
Reverse Breakdown Voltage	$V_{(BR)}$	I_T = 1mA	26.2	-	31	V
Reverse Leakage Current	I_R	V_{RWM} = 24V	-	-	10	nA
Clamping Voltage	V_C	I_{PP} = 1A, tp = 8/20μs	-	-	37	V
		I_{PP} = 5A, tp = 8/20μs	-	-	50	V
Junction Capacitance	C_J	V_R = 0V, f = 1MHZ	-	20	30	pF

Ratings and Characteristic Curves (@ T_A = 25°C unless otherwise specified)

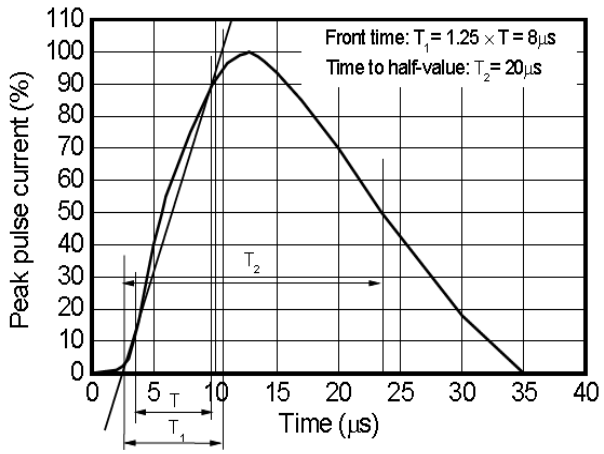


Fig 1 8/2 0μs waveform per IEC61000-4-5

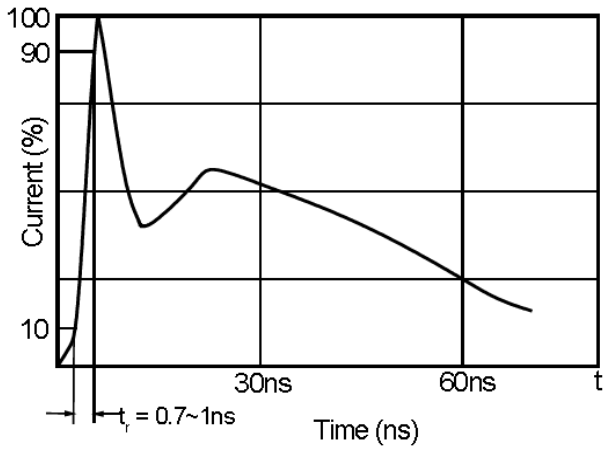


Fig 2 ESD pulse waveform according to IEC61000-4-2

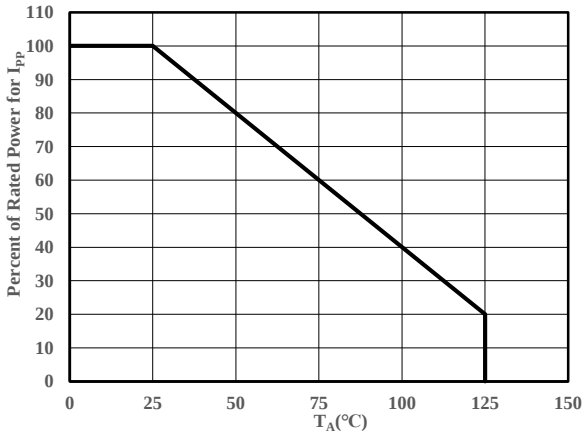
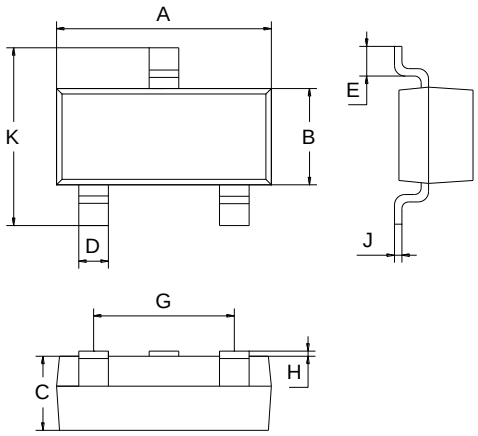


Fig 3 Power Derating Curve

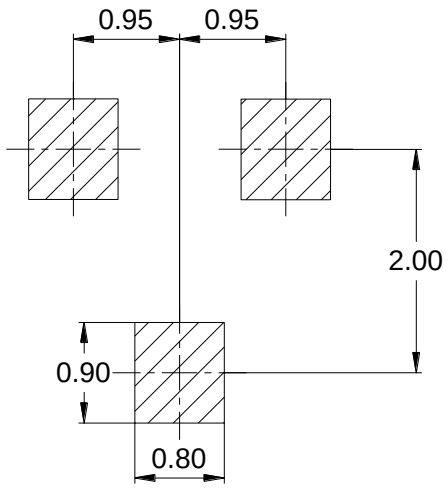
Package Outline Dimensions (Unit: mm)



SOT-23		
Dimension	**Min.**	**Max.**
A	2.70	3.10
B	1.10	1.50
C	0.9	1.1
D	0.3	0.5
E	0.35	0.48
G	1.80	2.00
H	0.02	0.1
J	0.05	0.15
K	2.20	2.60

Package Outline Dimensions (Unit: mm)

SOT-23



IMPORTANT NOTICE

Changzhou Galaxy Century Microelectronics (GME) reserves the right to make changes without further notice to any product information (copyrighted) herein to make corrections, modifications, improvements, or other changes. GME does not assume any liability arising out of the application or use of any product described herein; neither does it convey any license under its patent rights, nor the rights of others.