PG05HAS23

TVS Diode Array for ESD Protection in Portable Electronics

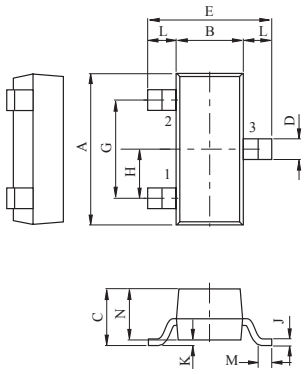
Protection in Portable Electronics Applications.

FEATURES

- 350 Watts peak pulse power (tp=8/20 μs)
- Transient protection for data lines to
  IEC61000-4-2(ESD) 15kV(Air), 8kV(Contact)
  IEC61000-4-4(EFT) 40A(tp=5/50ns)
  IEC61000-4-5(Lightning) 24A(tp=8/20 μs)
- Standard SOT-23 Package.
- Protects one Bidirectional line or two Unidirectional Lines.
- Low clamping voltage.
- Low leakage current.
- Suffix **U** : Qualified to AEC-Q101.
  ex) PG05HAS23-RTK/H**U**

APPLICATIONS

- Cell phone handsets and accessories.
- Microprocessor based equipment.
- Industrial Controls.
- Personal digital assistants (PDA's)
- Notebooks, desktops PC, & servers.
- Portable instrumentation.
- Set-Top Box, DVD Player.



Unit : mm

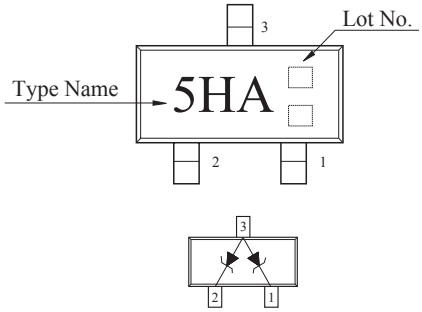
DIM	MILLIMETERS
A	2.93 ± 0.20
B	1.30+0.20/-0.15
C	1.30 MAX
D	0.40+0.15/-0.05
E	2.40+0.30/-0.20
G	1.90 ± 0.10
H	0.95 ± 0.10
J	0.13+0.10/-0.05
K	0.00 ~ 0.10
L	0.55 ± 0.10
M	0.20 MIN
N	1.00+0.20/-0.10

SOT-23

MAXIMUM RATING (Ta=25℃)

CHARACTERISTIC	SYMBOL	RATING	UNIT
Peak Pulse Power (tp=8/20 μs)	P_{PK}	350	W
Peak Pulse Current (tp=8/20 μs)	I_{PP}	24	A
Operating Temperature	T_j	-55 ~ 150	℃
Storage Temperature	T_{stg}	-55 ~ 150	℃

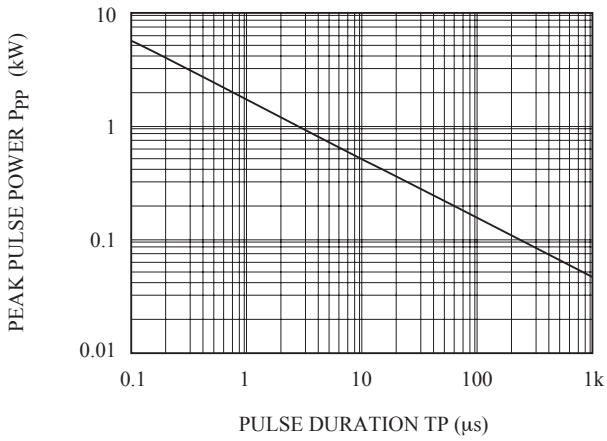
Marking



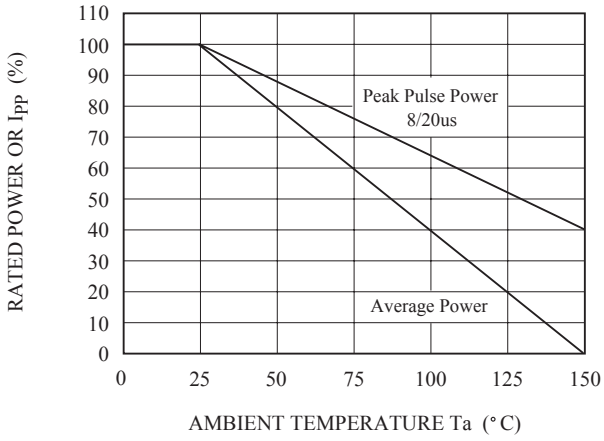
ELECTRICAL CHARACTERISTICS (Ta=25℃)

CHARACTERISTIC	SYMBOL	TEST CONDITION	MIN.	TYP.	MAX.	UNIT
Reverse Stand-Off Voltage	V_{RWM}	-	-	-	5	V
Reverse Breakdown Voltage	V_{BR}	I_t=1mA	6	-	-	V
Reverse Leakage Current	I_R	V_{RWM}=5V	-	-	20	μA
Clamping Voltage	V_C	I_{PP}=24A, tp=8/20 μs	-	-	14.5	V
Junction Capacitance	C_J	V_R=0V, f=1MHz Pin 1 to 3 and Pin 2 to 3	-	-	400	pF

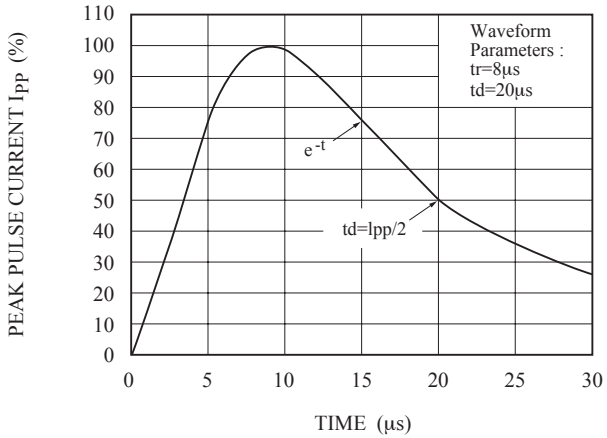
NON-REPETITIVE PEAK PULSE POWER VS. PULSE TIME



POWER DERATION CURVE



PULSE WAVEFORM



C_J - V_R