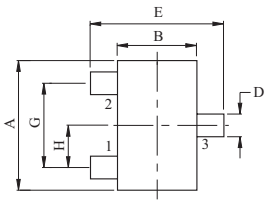
PG05EAESM

TVS Diode for ESD Protection in Portable Electronics

Protection in Portable Electronics Applications.

FEATURES

- Transient protection for data lines to IEC 61000-4-2(ESD) 15kV(Air), 8kV(Contact)
- Small package for use in portable electronics.
- Suitable replacement for Multi-Layer Varistors in ESD protection applications.
- Protects one I/O or power line.
- Low clamping voltage.
- Low leakage current.
- Suffix **U** : Qualified to AEC-Q101.
  ex) PG05EAESM-RTK/H**U**



DIM	MILLIMETERS
A	1.60±0.10
B	0.85±0.10
C	0.70±0.10
D	0.27+0.10/-0.05
E	1.60±0.10
G	1.00±0.10
H	0.50
J	0.13±0.05

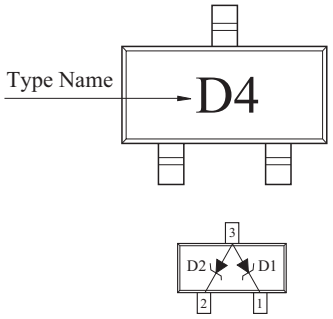
1. (TVS) D1 CATHODE
2. (TVS) D2 CATHODE
3. COMMON ANODE

ESM

APPLICATIONS

- Cell phone handsets and accessories.
- Microprocessor based equipment.
- Personal digital assistants (PDA's)
- Notebooks, desktops, & servers.
- Portable instrumentation.
- Pagers peripherals.

Marking



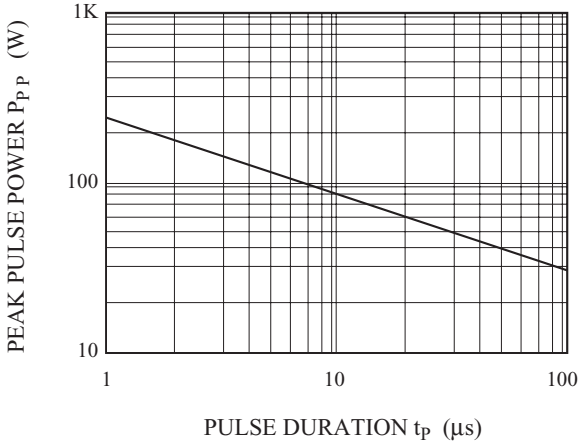
MAXIMUM RATING (Ta=25℃)

CHARACTERISTIC	SYMBOL	RATING	UNIT
Peak Pulse Power (tp=8/20 μs)	P_{PK}	60	W
Peak Pulse Current (tp=8/20 μs)	I_{PP}	6.7	A
Junction Temperature	T_j	-55 150	℃
Storage Temperature	T_{stg}	-55 150	℃

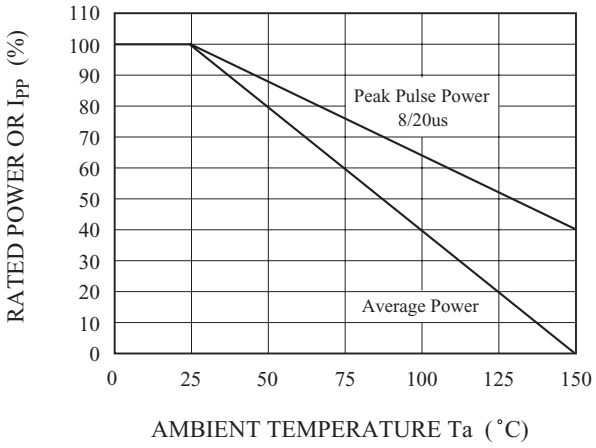
ELECTRICAL CHARACTERISTICS (Ta=25℃)

CHARACTERISTIC	SYMBOL	TEST CONDITION	MIN.	TYP.	MAX.	UNIT
Reverse Stand-Off Voltage	V_{RWM}	-	-	-	5	V
Reverse Breakdown Voltage	V_{BR}	I_t=5mA	6.46	-	7.14	V
Reverse Leakage Current	I_R	V_{RWM}=4.5V	-	-	1	μA
Clamping Voltage	$V_{C(1)}$	I_{PP}=1A, t_p=8/20μs	-	-	12	V
	$V_{C(2)}$	I_{PP}=5A, t_p=8/20μs	-	-	17	V
Junction Capacitance	C_J	V_R=0V, f=1MHz	-	33	40	pF

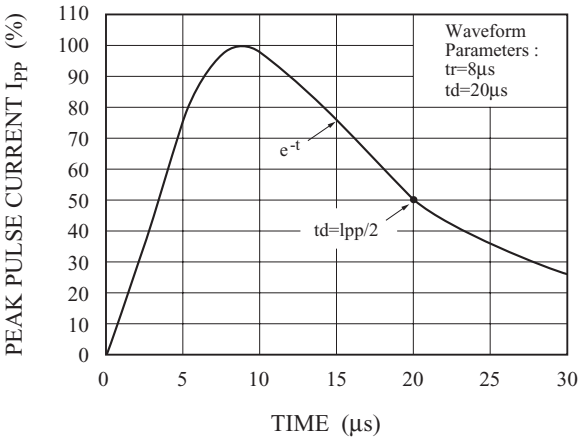
NON-REPETITIVE PEAK PULSE POWER VS. PULSE TIME



POWER DERATION CURVE



PULSE WAVEFORM



C_J - V_R