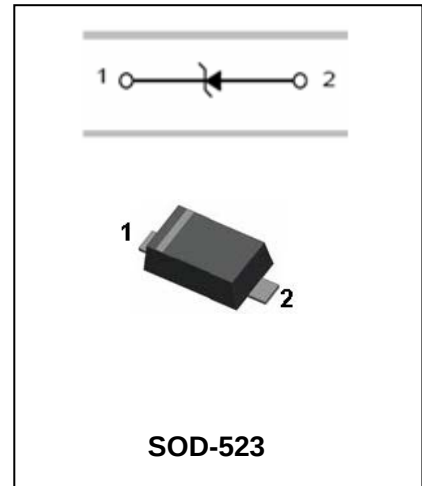


Single Line TVS Diode

GESD30VD5

FEATURES

- For surface mounted applications in order to optimize board space.
- Built-in strain relief.
- Glass passivated junction.
- Low inductance.
- Excellent clamping capability.
- Repetition Rate (duty cycle):0.01%.
- Fast response time.
- Typical IR less than 1μA above 10V.
- High Temperature soldering.
- Pb-free plated.



ORDERING INFORMATION

Type No.	Marking	Package Code
GESD30VD5□	CK	SOD-523

□: none is for Lead Free package;

“G” is for Halogen Free package

MAXIMUM RATING @ Ta=25℃ unless otherwise specified

Parameter	Symbol	Limits	Unit
Reverse Stand-off Voltage	V_{RWM}	30	V
Peak pulse current(Note ¹ ,FIG.3) $t_p=8/20\mu s$	I_{PP}	5	A
Peak pulse power dissipation(Note ^{1,2} ,FIG.1) $t_p=8/20\mu s$	P_{PP}	300	W
Peak Forward Surge Current,8.3ms Single Half Sine-Wave Superimposed on Rated Load,(JEDEC Method) (Note ^{2,3})	I_{FSM}	20	A
Junction temperature	T_J	150	℃
Storage Temperature Range	T_{STG}	-55 to +150	℃

Single Line TVS Diode

GESD30VD5

Note:

- 1.Non-repetitive current pulse , per Fig. 3 and derated above $T_A = 25^\circ\text{C}$ per Fig. 2 .
- 2.Mounted on 5.0mm x 5.0mm (0.03mm thick) Copper Pads to each terminal
- 3.8.3ms single half sine-wave , or equivalent square wave, Duty cycle = 4 pulses per minutes maximum.

ELECTRICAL CHARACTERISTICS @ $T_A=25^\circ\text{C}$ unless otherwise specified

Parameter	Symbol	Conditions	Min	Typ	Max	Units
Reverse Breakdown Voltage	V_{BR}	$I_R=1\text{mA}$	33	35	39	V
Reverse Leakage Current	I_R	$V_{RWM}=30\text{V}$	-	-	1	μA
Clamping Voltage(Note1)	V_C	$I_{PP}=5\text{A}$	-	-	60	V
Junction capacitance	C_j	$V_R=0\text{V}, f=1\text{MHz}$	-	30	-	PF

TYPICAL CHARACTERISTICS @ $T_A=25^\circ\text{C}$ unless otherwise specified

Fig.1 Peak Pulse Power Rating Curve

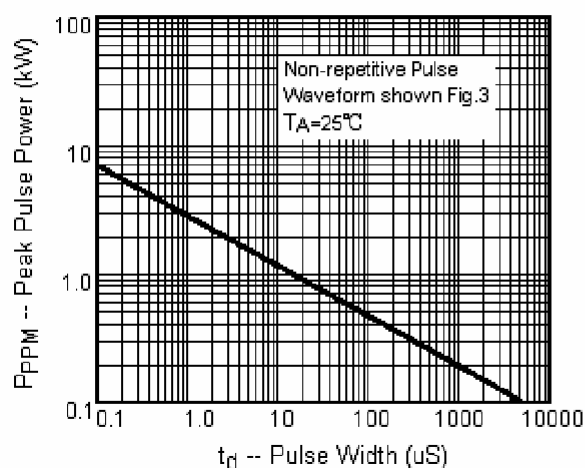
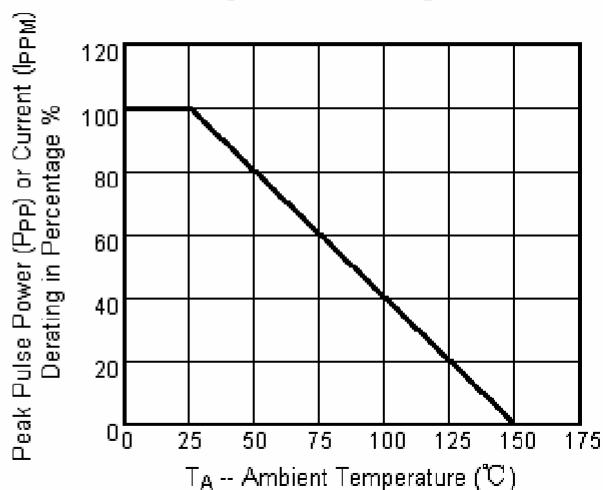


Fig.2 Pulse Derating Curve



Single Line TVS Diode

GESD30VD5

Fig.3 Pulse Waverform

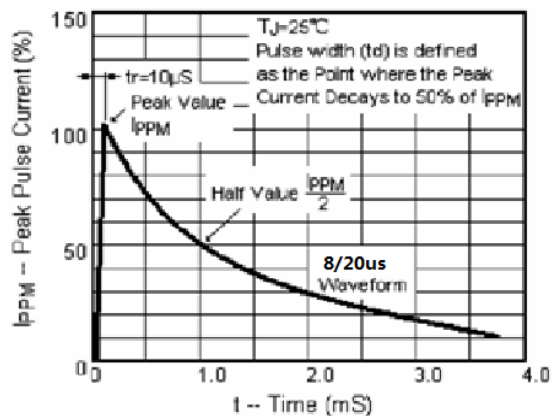
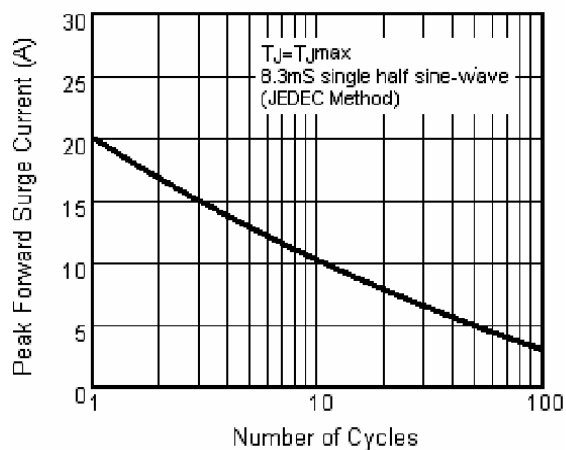


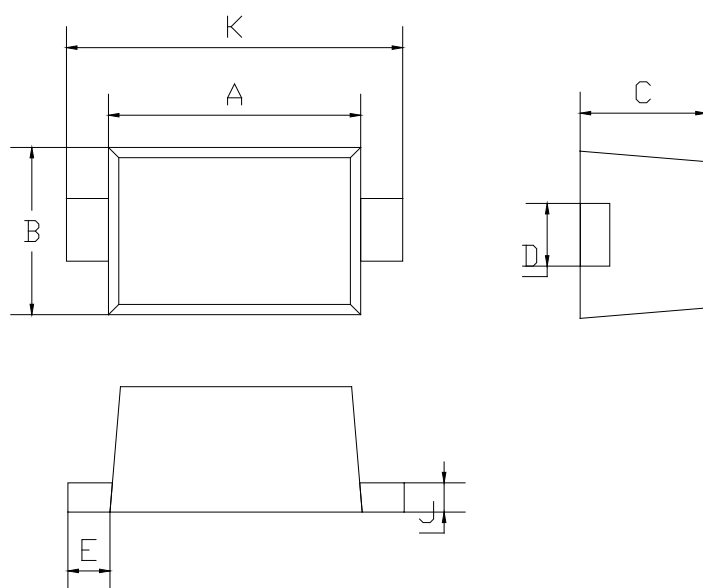
Fig.4 Maximum Non-Repetitive Peak Forward Surge Current



PACKAGE OUTLINE

Plastic surface mounted package

SOD-523

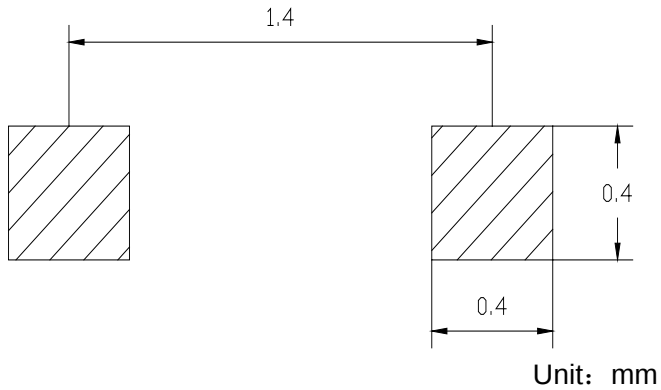


SOD-523		
Dim	Min	Max
A	1.10	1.30
B	0.70	0.90
C	0.50	0.70
D	0.25	0.35
E	0.15	0.25
J	0.05	0.15
K	1.50	1.70
All Dimensions in mm		

Single Line TVS Diode

GESD30VD5

SOLDERING FOOTPRINT



PACKAGE INFORMATION

Device	Package	Shipping
GESD30VD5	SOD-523	3000/Tape&Reel