

FEATURES

- ✧ 100 Watts peak pulse power per line ($t_p=8/20\mu s$)
- ✧ Protect for two I/O lines with bi-directional
- ✧ Low clamping voltage
- ✧ Working voltages: 12V
- ✧ Low leakage current
- ✧ ROHS compliant
- ✧ Compliant to Halogen-free
- ✧ Suffix "-Q1" for AEC-Q101

MAIN APPLICATIONS

- ✧ RS-232, RS-422 & RS-485
- ✧ Servers, notebook, and desktop
- ✧ Cellular handsets and accessories
- ✧ Control & monitoring systems
- ✧ Portable electronics
- ✧ Wireless bus protection
- ✧ Set-top box

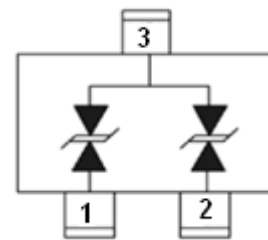
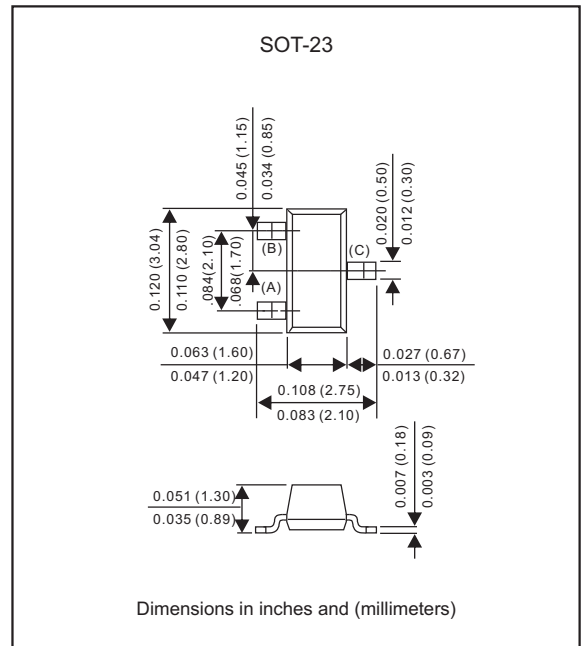
PROTECTION SOLUTION TO MEET

- ✧ IEC61000-4-2 (ESD) $\pm 30kV$ (air), $\pm 30kV$ (contact)
- ✧ IEC61000-4-4 (EFT) 40A (5/50ns)
- ✧ IEC61000-4-5 (Lightning) 4A (8/20us)

MECHANICAL CHARACTERISTICS

- ✧ SOT-23 package
- ✧ Molding compound flammability rating : UL 94V-0
- ✧ Lead finish : lead free
- ✧ Marking code: AB2

Package outline



PIN Configuration

ABSOLUTE MAXIMUM RATINGS ($T_A=25^{\circ}\text{C}$, RH=45%-75%, unless otherwise noted)

Parameter	Symbol	Value	Unit
Peak pulse power dissipation on 8/20 μs waveform	P_{PP}	100	W
ESD per IEC 61000-4-2 (Air) ESD per IEC 61000-4-2 (Contact)	V_{ESD}	+/-30 +/-30	kV
Operating junction temperature range	T_J	-55 to +125	$^{\circ}\text{C}$
Storage temperature range	T_{STG}	-55 to +150	$^{\circ}\text{C}$

ELECTRICAL CHARACTERISTICS ($T_A=25^{\circ}\text{C}$)

Parameter	Symbol	Conditions	Min	Typ	Max	Unit
Reverse working voltage	V_{RWM}				12	V
Reverse breakdown voltage	V_{BR}	$I_T = 1\text{mA}$	13.3			V
Reverse leakage current	I_R	$V_{RWM} = 12\text{V}$			1	μA
Clamping voltage	V_C	$I_{PP}^{(1)} = 1\text{A}$, $t_p = 8/20\mu\text{s}$		19		V
		$I_{PP}^{(1)} = 4\text{A}$, $t_p = 8/20\mu\text{s}$			25	V
Junction capacitance	$C_J^{(2)}$	$V_{RWM} = 0\text{V}$, $f = 1\text{MHz}$		5		pF

② Surge waveform: 8/20 μs

② C_J measured @ $V_{RWM}=0\text{V}$, 1MHz (pin 1 to pin3, pin 2 to pin3)

RATINGS AND V-I CHARACTERISTICS CURVES ($T_A=25^{\circ}\text{C}$, unless otherwise noted)

FIG.1 Power Derating Curve

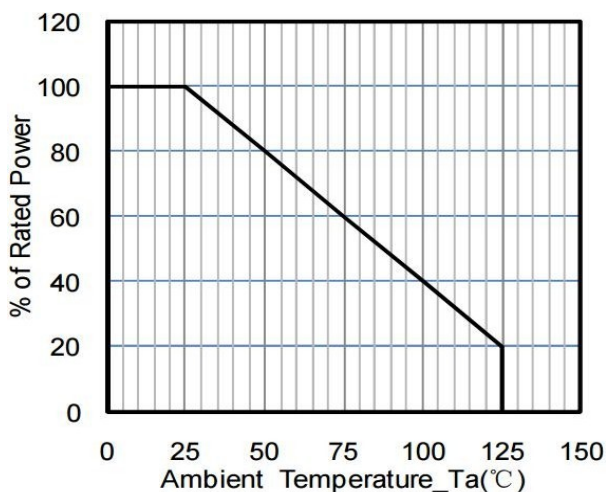


FIG.2 Pulse Waveform (8/20 μs)

