

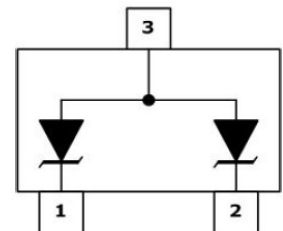
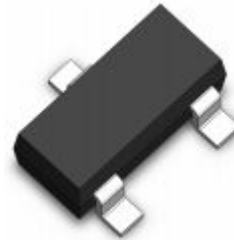
FEATURES

- ✧ Working voltages :12V
- ✧ 150 Watts peak pulse power ($t_p=8/20\mu s$)
- ✧ Low clamping voltage
- ✧ Low reverse clamping voltage
- ✧ Compliant to Halogen-free
- ✧ Suffix "-Q1" for AEC-Q101

MAIN APPLICATIONS

- ✧ Cell Phone Handsets and Accessories
- ✧ Microprocessor based equipment
- ✧ Portable instrumentation

Pin Configuration



MECHANICAL CHARACTERISTICS

- ✧ SOT-523 package
- ✧ Molding compound flammability rating : UL 94V-0
- ✧ Marking code: T12

ABSOLUTE MAXIMUM RATINGS ($T_A=25^\circ C$, unless otherwise noted)

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
Peak Pulse Power ($t_p = 8/20\mu s$)	P_{PP}	150	W
Junction Temperature	T_J	$-55 \sim +125$	$^\circ C$
Storage Temperature Range	T_{STG}	$-55 \sim +150$	$^\circ C$

ELECTRICAL CHARACTERISTICS ($T_A=25^\circ C$, unless otherwise noted)

Parameter	Symbol	Test Condition	Min.	Typ.	Max.	Unit
Reverse Stand-off Voltage	V_{RWM}		-	-	12	V
Reverse Breakdown Voltage	$V_{(BR)}$	$I_T = 1mA$	13.3	-	16	V
Reverse Leakage Current	I_R	$V_{RWM} = 12V$	-	-	1	μA
Clamping Voltage	V_C	$I_{PP} = 8A, t_p = 8/20\mu s$	-	-	20	V
Junction Capacitance	C_J	$V_R = 0V, f = 1MHz$ Pin 1 or 2 to Pin 3	-	-	100	pF

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

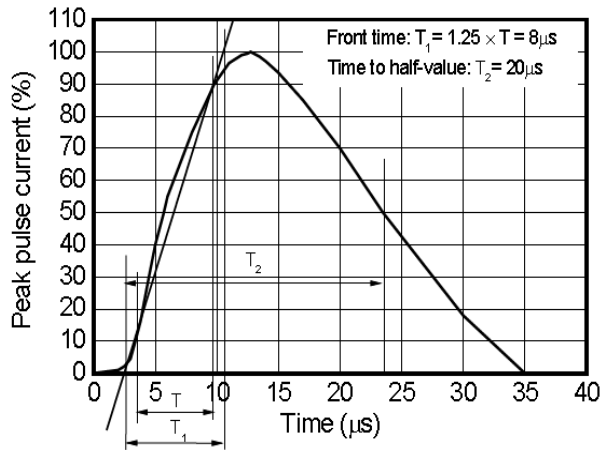


Fig 1 8/20 μs waveform per IEC61000-4-5

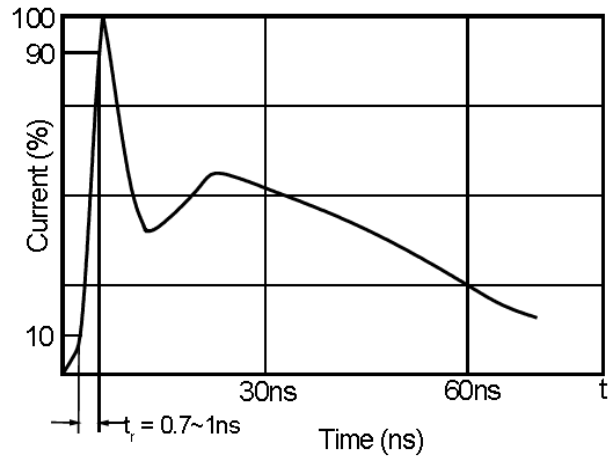


Fig 2 ESD pulse waveform according to IEC61000-4-2

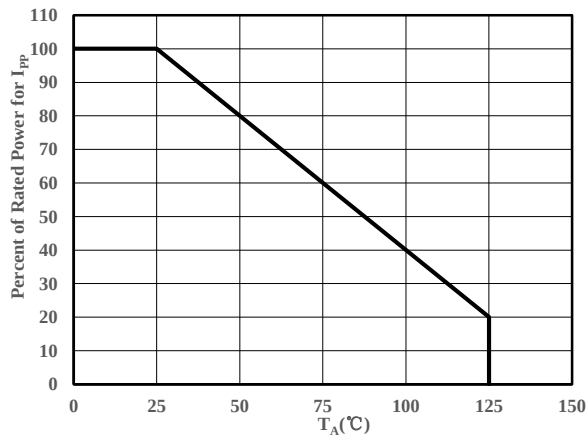
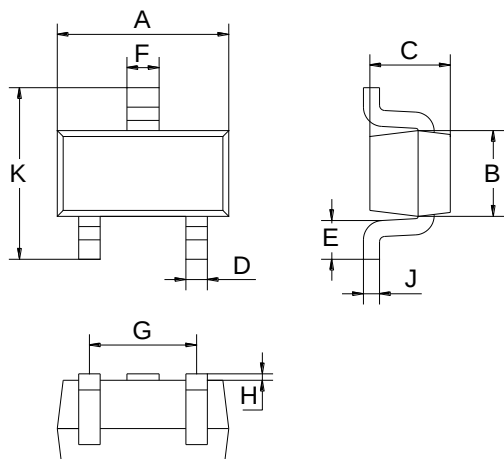


Fig 3 Power Derating Curve

SOT-523 PACKAGE MECHANICAL DATA (Unit:mm)



SOT-523		
Dimension	Min.	Max.
A	1.50	1.70
B	0.75	0.85
C	0.60	0.80
D	0.15	0.30
E	0.30	0.40
F	0.25	0.40
G	0.90	1.10
H	0.02	0.10
J	0.08	0.18
K	1.45	1.75

