

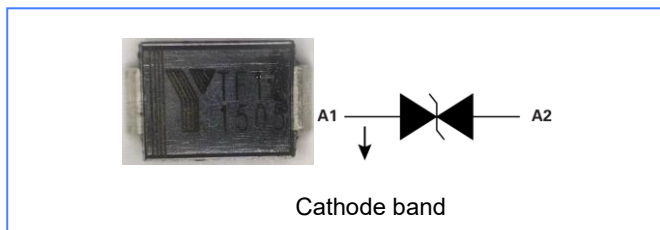
SMB15J40CA/A

Features

- Low profile package
- Ideal for automated placement
- Glass passivated chip junction
- Excellent clamping capability
- Very fast response time
- Low incremental surge resistance
- IEC 61000-4-2 ESD 30 kV(Air), 30 kV (Contact)
- Meets MSL level 1, per J-STD-020, LF maximum peak of 260 °C
- Case: DO-214AA (SMB)
- 600 W peak pulse power capability with a10/1000 us waveform, repetitive rate (duty cycle):0.01 %

Description

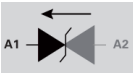
The SMBJ1505CA is designed specifically for SIC MOSFET gate protection for asymmetric voltages.



Maximum Ratings (TA=25°C unless otherwise noted)

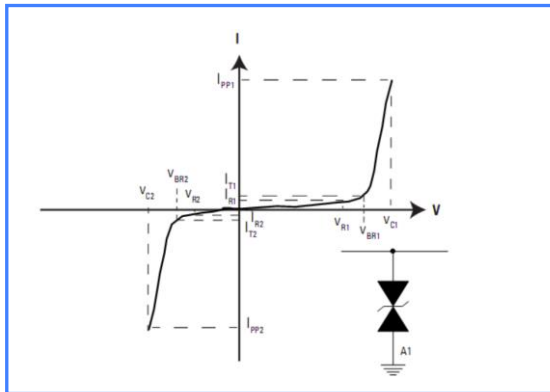
Parameter	Symbol	Value	Unit
Minimum Peak Pulse Power Dissipation (T = 1 ms)	P _{PK}	600	Watts
Operating Temperature Range	T _J	-55 to +150	°C
Storage Temperature Range	T _{STG}	-55 to +150	°C

Electrical Characteristics (TA = 25 °C unless otherwise noted)

								
Part Number	Reverse Stand off Voltage V _R (Volts)	Breakdown Voltage V _{BR} (Volts)@I _T		Test Current I _T (mA)	Maximum Reverse Leakage I _R @ V _R (μA)	Maximum Peak Pulse Current I _{pp} (A)	Maximum Clamping Voltage V _C @ I _{pp} (V)	Junction Capacitance Typ@ 1 MHz, 0 V Bias (pF)
		Min .V	Max .V					
SMBJ1505CA	15	16.7	18.5	1	1	24.6	24.4	1000

								
Part Number	Reverse Stand off Voltage V _R (Volts)	Breakdown Voltage V _{BR} (Volts)@I _T		Test Current I _T (mA)	Maximum Reverse Leakage I _R @ V _R (μA)	Maximum Peak Pulse Current I _{pp} (A)	Maximum Clamping Voltage V _C @ I _{pp} (V)	Junction Capacitance Typ@ 1 MHz, 0 V Bias (pF)
		Min .V	Max .V					
SMBJ1505CA	5	6.4	7.4	10	500	43.5	10	1000

I-V Curve Characteristics



Symbol	Parameter
I_{PP}	Maximum Reverse Peak Pulse Current
V_C	Clamping Voltage @ I_{PP}
V_{RWM}	Working Peak Reverse Voltage
I_R	Maximum Reverse Leakage Current @ V_{RWM}
V_{BR}	Breakdown Voltage @ I_T (Test Current)

Rating & Characteristic Curves

Figure 1- Pulse Power or Current vs. Initial Junction Temperature

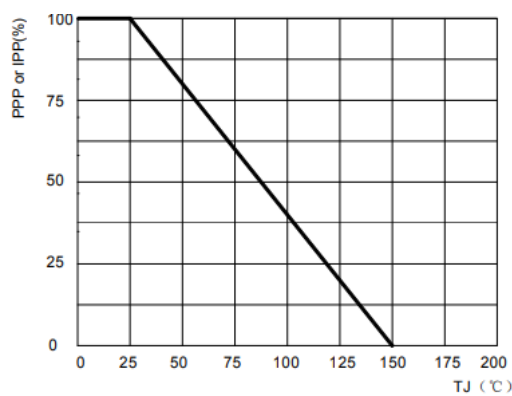
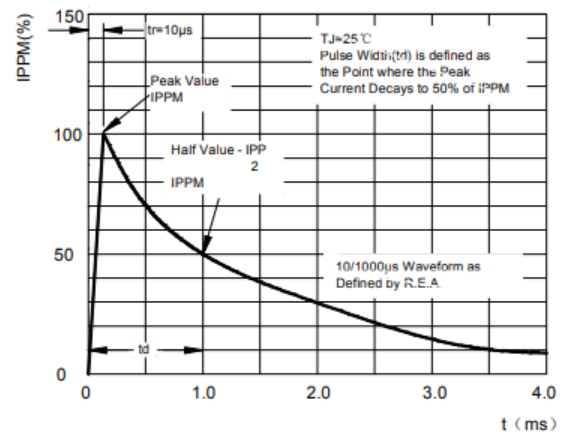
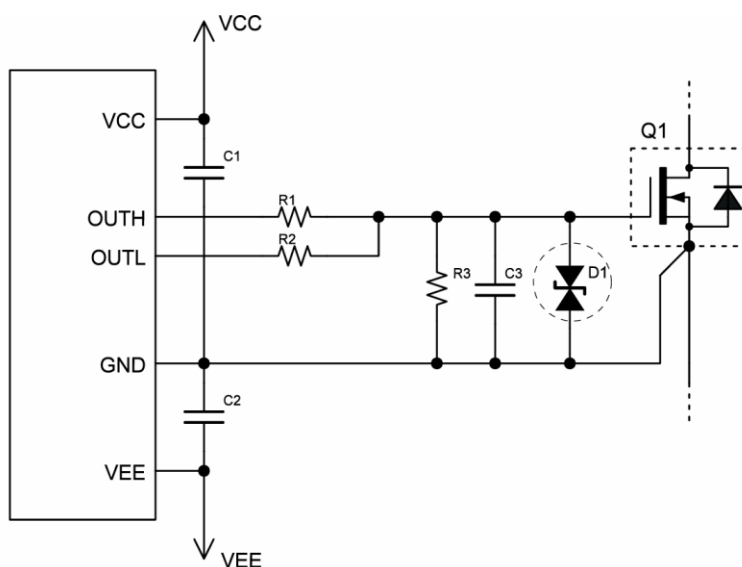


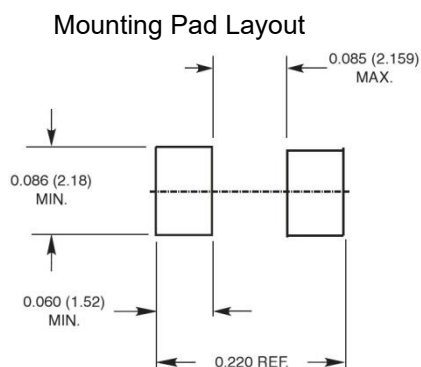
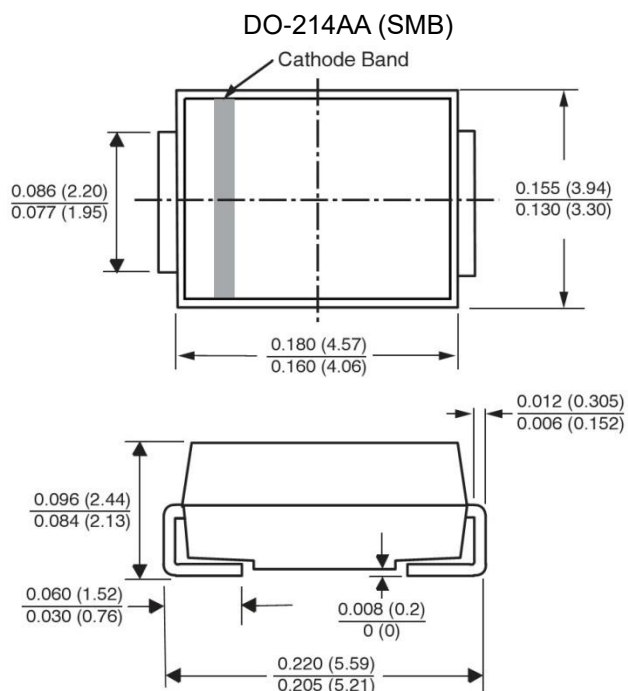
Figure 4- Pulse Waveform



Application Example



PACKAGE OUTLINE DIMENSIONS in inches (millimeters)



Disclaimer

Specifications are subject to change without notice.

The device characteristics and parameters in this data sheet can and do vary in different applications and actual device performance may vary over time.

Users should verify actual device performance in their specific applications.