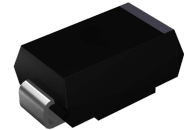


Features

- Peak power dissipation 2000W @10 x 1000 us Pulse
- Peak power dissipation 35000W @ 8x 20 us Pulse
- Max surge capability 4000V @10 x 700 us 40Ω Pulse
- Low profile package
- Excellent clamping capability
- Glass passivated junction
- Fast response time: typically less than 5ps from 0 Volts to BV min
- Typical IR less than 1uA
- IEC 61000-4-2 ESD 30KV(Air), 30KV(Contact)
- ESD protection of data lines in accordance with IEC 61000-4-2
- EFT protection of data lines in accordance with IEC 61000-4-4
- Halogen free and RoHS compliant
- Lead-free finish



DO-214AA (SMB)



Schematic Diagram

Mechanical Characteristics

- Package: DO-214AA (SMB)
- Mounting Position: Any
- Terminal: Solder plated

Maximum Ratings and Electrical Characteristics

(T_A=25°C unless otherwise specified)

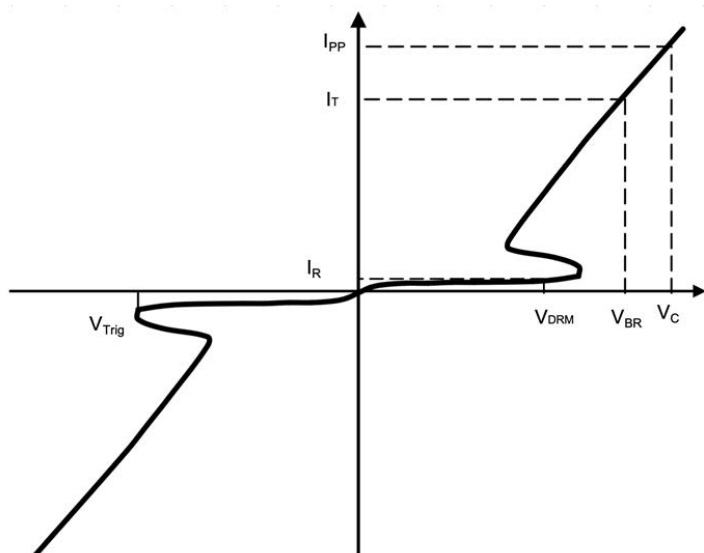
Parameter	Symbol	Value	Unit
Peak Pulse Power Dissipation on 10/1000 us Waveform	P _{PPM}	2000	W
Peak Pulse Power Dissipation on 8/20 us Waveform	P _{PPM}	35000	W
Max Surge Voltage Capability at 10/700us 40Ω Waveform	V _{PP}	4000	V
Power Dissipation on Infinite Heatsink at T _L =50°C	P _D	5	W
Operating Junction Temperature Range	T _J	-55 to +150	°C
Storage Temperature Range	T _{STG}	-55 to +150	°C

Electrical Characteristics (T_A=25°C unless otherwise specified)

Parameter	Symbol	Test Conditions	Min.	Typ.	Max.	Unit
Reverse Working Voltage	V _{DRM}	-	-	-	58	V
Reverse Breakdown Voltage	V _{BR}	I _T =10mA	60	-	72	V
Reverse Leakage Current	I _R	V _{RWM} =58V	-	-	1	uA
Clamping Voltage	V _C	I _{PP} =34A, t _p =8/20μs	-	-	60	V
Clamping Voltage	V _C	I _{PP} =500A, t _p =8/20μs	-	-	70	V
Max Surge Voltage Capability	V _{PP}	t _p =10/700μs, 40Ω	-	4000	-	V
Junction Capacitance	C _J	V _R =0V, f=1MHz	-	550	-	pF

I-V Curve Characteristics

Symbol	Parameter
I _{PP}	Maximum Reverse Peak Pulse Current
V _C	Clamping Voltage @ I _{PP}
V _{DRMW}	Working Peak Reverse Voltage
I _R	Maximum Reverse Leakage Current @ V _{RWM}
I _T	Test Current
V _{BR}	Breakdown Voltage @ I _T
V _{Trig}	Triggering Voltage



Ratings and Characteristic Curves

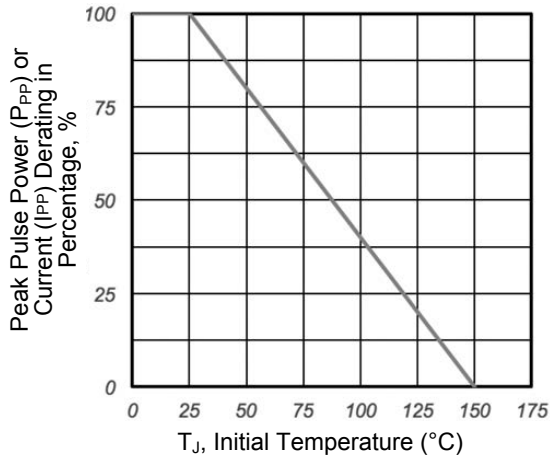


Figure 1. Pulse Derating Curve

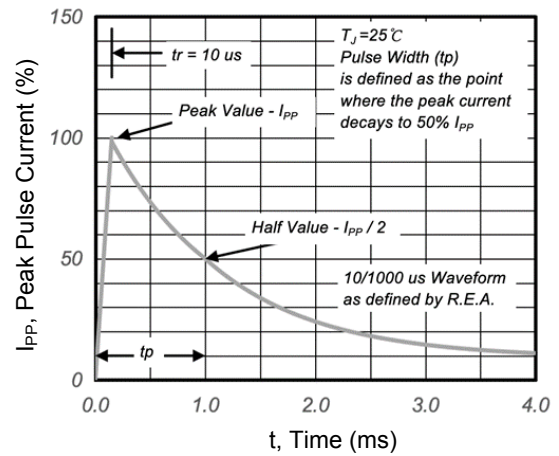


Figure 2. 10/1000us Pulse Waveform

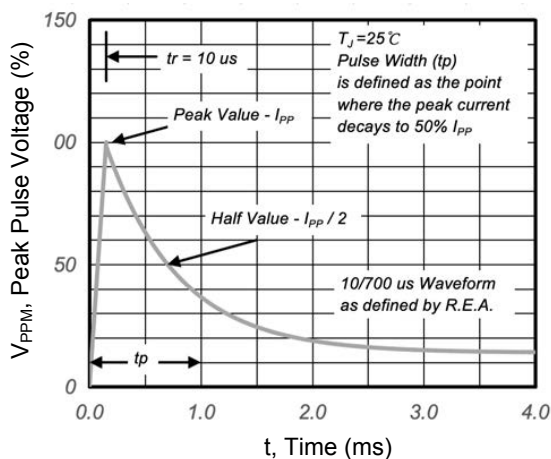


Figure 3. 10/700us Pulse Waveform

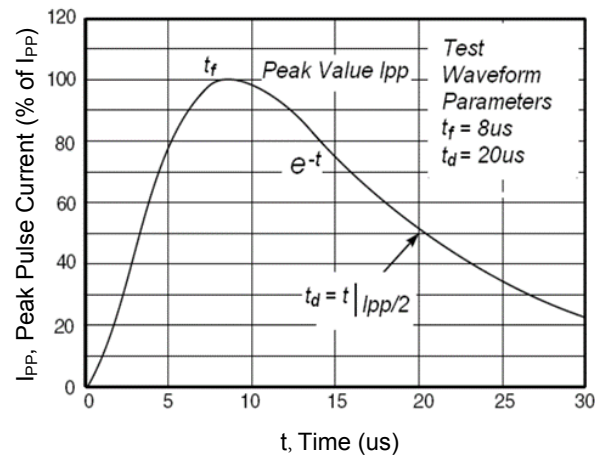
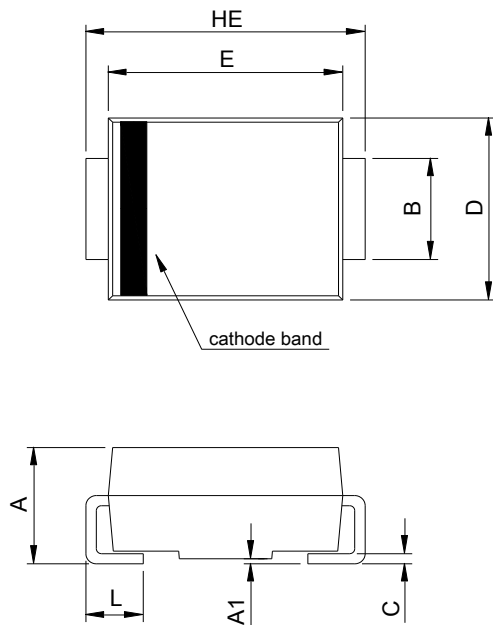


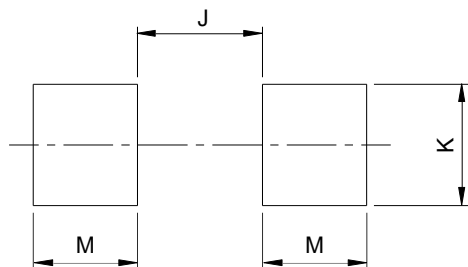
Figure 4. 8/20us Pulse Waveform

Package Outline Dimensions DO-214AA(SMB)



SMB (DO-214AA)				
DIM	Millimeters		Inches	
	Min.	Max.	Min.	Max.
A	1.80	2.65	0.071	0.104
A1	0.00	0.20	0.000	0.008
B	1.78	2.20	0.070	0.087
C	0.13	0.31	0.005	0.012
D	3.30	3.95	0.130	0.156
E	4.06	4.60	0.160	0.181
HE	5.08	5.60	0.200	0.220
L	0.76	1.60	0.030	0.063

Recommended Pad Layout



Recommended Pad Layout (Reference ONLY)				
DIM	Millimeters		Inches	
	Min.	Max.	Min.	Max.
J	-	2.60	-	0.102
K	2.20	-	0.087	-
M	1.80	-	0.071	-

Order Information

Device	Package	Marking	Carrier	Quantity
GS4MBJ58CA	DO-214AA(SMB)	58CM	Tape & Reel	3,000 pcs / Reel

For more information, please contact us at: inquiry@goodarksemi.com