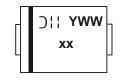


Marking Information

Bidirectional Device

Cathode Band for Unidirectional Device





YWW = Date Code Marking Y = Last Digit of Year (ex: 1 for 2021) WW = Week Code (01 to 53)



Maximum Ratings (@ $T_A = +25$ °C, unless otherwise specified.)

Characteristic	Symbol	Value	Unit
Peak Pulse Power Dissipation			
(Non Repetitive Current Pulse Derated above T _A = +25°C)	P _{PK}	600	W
(Note 6)			
Peak Power Derating Above +25°C	P _{DER}	4.8	W/°C
Peak Forward Surge Current, 8.3ms Single Half Sine Wave Superimposed on Rated Load (Notes 6, 7 & 8)	IFSM	100	А
Steady State Power Dissipation @ T _L = +75°C	PM _(AV)	5.0	W
Instantaneous Forward Voltage @ IPP = 35A (Notes 6, 7 & 8)	VF	3.5	V

Thermal Characteristics

Characteristic	Symbol	Value	Unit	
Operating Temperature Range	TJ	-55 to +150	°C	
Storage Temperature Range	T _{STG}	-55 to +175	°C	

Notes:

- 6. Valid provided that terminals are kept at ambient temperature.
- 7. Measured with 8.3ms single half sine-wave. Duty cycle = 4 pulses per minute maximum.
- 8. Unidirectional units only.



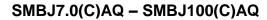
Electrical Characteristics (@T_A = +25°C, unless otherwise specified.)

Part Number Add C for Bi- Directional	Reverse Standoff Voltage	Vol	kdown Itage · (Note 10)	Test Current	Max. Reverse Leakage @ V _{RWM} (Note 12)	Max. Clamping Voltage @ I _{pp} (Note 11)	Max. Peak Pulse Current	Marking	g Code
(Note 9)	VRWM (V)	Min (V)	Max (V)	Iτ (mA)	IR (μA)	Vc (V)	Ipp (A)	BI-	UNI-
SMBJ7.0(C)AQ	7.0	7.78	8.95	10	200	12.0	50.0	AM	KM
SMBJ12(C)AQ	12.0	13.30	15.30	1.0	5.0	19.9	30.2	BE	LE
SMBJ14(C)AQ	14.0	15.60	17.90	1.0	5.0	23.2	25.8	BK	LK
SMBJ15(C)AQ	15.0	16.70	19.20	1.0	5.0	24.4	24.0	BM	LM
SMBJ16(C)AQ	16.0	17.80	20.50	1.0	5.0	26.0	23.1	BP	LP
SMBJ17(C)AQ	17.0	18.90	21.70	1.0	5.0	27.6	21.7	BR	LR
SMBJ18(C)AQ	18.0	20.00	23.30	1.0	5.0	29.2	20.5	BT	LT
SMBJ20(C)AQ	20.0	22.20	25.50	1.0	5.0	32.4	18.5	BV	LV
SMBJ22(C)AQ	22.0	24.40	28.00	1.0	5.0	35.5	16.9	ВХ	LX
SMBJ24(C)AQ	24.0	26.70	30.70	1.0	5.0	38.9	15.4	BZ	LZ
SMBJ26(C)AQ	26.0	28.90	33.20	1.0	5.0	42.1	14.2	CE	ME
SMBJ28(C)AQ	28.0	31.10	35.80	1.0	5.0	45.4	13.2	CG	MG
SMBJ30(C)AQ	30.0	33.30	38.30	1.0	5.0	48.4	12.4	CK	MK
SMBJ33(C)AQ	33.0	36.70	42.20	1.0	5.0	53.3	11.3	CM	MM
SMBJ36(C)AQ	36.0	40.00	46.00	1.0	5.0	58.1	10.3	CP	MP
SMBJ40(C)AQ	40.0	44.40	51.10	1.0	5.0	64.5	9.3	CR	MR
SMBJ51(C)AQ	51.0	56.70	65.20	1.0	5.0	82.4	7.3	CZ	MZ
SMBJ58(C)AQ	58.0	64.40	74.60	1.0	5.0	93.6	6.4	DG	NG
SMBJ70(C)AQ	70.0	77.80	89.50	1.0	5.0	113.0	5.3	DP	NP
SMBJ100(C)AQ	100.0	111.0	128.00	1.0	5.0	162.0	3.7	DZ	NZ

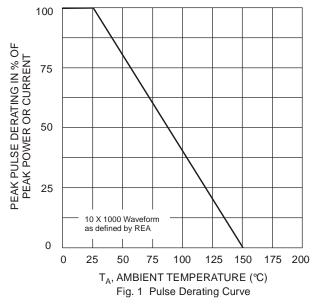
Notes:

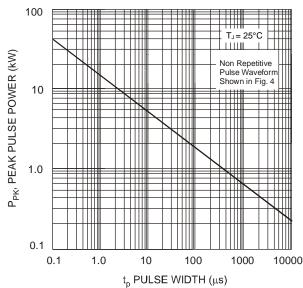
^{9.} Suffix C denotes bidirectional device.

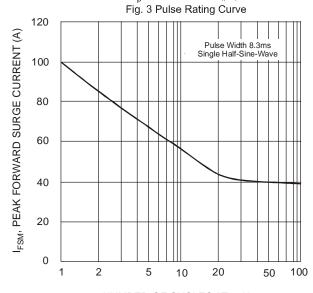
^{10.} V_{BR} measured with I_T current pulse = 10ms to 15ms. 11. Per 10 × 1000µs waveform. See Figure 4. 12. For Bi-Directional devices having V_{RWM} of 10V and under, the I_R is doubled.



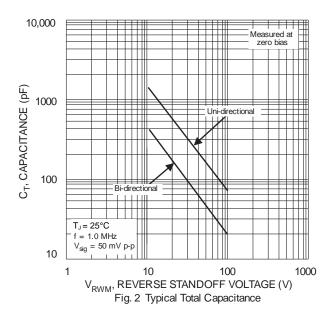


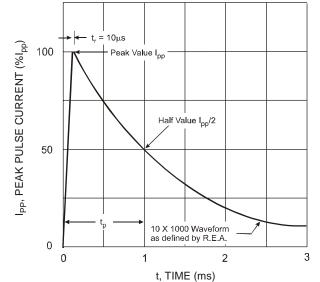


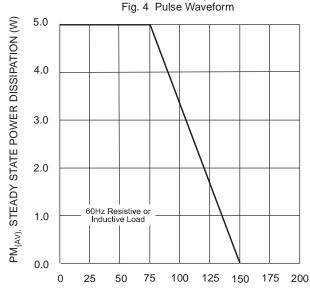




NUMBER OF CYCLES AT 60Hz Fig. 5 Maximum Non-Repetitive Surge Current







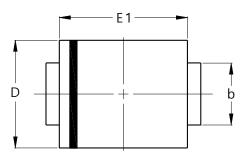
T_I, LEAD TEMPERATURE (°C) Fig. 6 Steady State Power Derating Curve

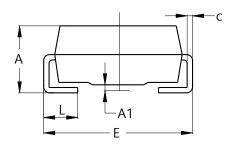


Package Outline Dimensions (Note 13)

Please see http://www.diodes.com/package-outlines.html for the latest version.

SMB





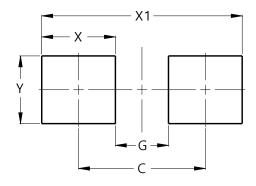
SMB					
Dim	Min	Max			
Α	2.00	2.50			
A1	0.05	0.20			
b	1.96	2.21			
С	0.15	0.31			
D	3.30	3.94			
Е	5.00	5.59			
E1	4.06	4.57			
L	0.76	1.52			
All Dimensions in mm					

Note: 13. The bar in the upper drawing is polarity indicator for Cathode Band. It is for unidirectional devices only. Bidirectional devices have no polarity Indicator.

Suggested Pad Layout

Please see http://www.diodes.com/package-outlines.html for the latest version.

SMB



Dimensions	Value (in mm)		
С	4.30		
G	1.80		
Х	2.50		
X1	6.80		
V	2.30		



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