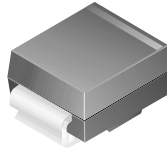


SMBJ12A822



DO-214AA(SMB)
Color Band Denotes Cathode
Device Marking:PT

600 Watt Unidirectional Transient Voltage Suppressor

Absolute Maximum Ratings (Note 1) $T_A = 25^\circ\text{C}$ unless otherwise noted

Symbol	Parameter	Value	Units
P_{PPM}	Peak Pulse Power Dissipation on 10/1000 μs waveform	600	W
I_{PPM}	Peak Pulse Current on 10/1000 μs waveform	17.5	A
I_{FSM}	Non-repetitive Peak Forward Surge Current superimposed on rated load (JEDEC method)(Note 2)	100	A

Note 1) These ratings are limiting values above which serviceability of any semiconductor device may be impaired.

Note 2) Measured on 8.3ms single half-sine wave or equivalent square wave. Duty cycle=4 pulses per minute maximum.

Thermal Characteristics

Symbol	Parameter	Value	Units
$R_{\theta JA}$	Thermal Resistance from Junction to Ambient	100	$^\circ\text{C}/\text{W}$
$R_{\theta JL}$	Thermal Resistance from Junction to Leads	20	$^\circ\text{C}/\text{W}$
T_{STG}	Storage Temperature Range	-65 to +175	$^\circ\text{C}$
T_J	Operating Junction Temperature	-65 to +150	$^\circ\text{C}$

Electrical Characteristics $T_A = 25^\circ\text{C}$ unless otherwise noted

Symbol	Parameter	Value	Units
V_{BR}	Breakdown Voltage at $I_T = 1.0\text{mA}$	13.2 – 14.3	V
αT	Maximum Temperature coefficient of V_{BR}	0.084	$\%/^\circ\text{C}$
V_{RWM}	Reverse Stand-off Voltage	12	V
I_R	Maximum Reverse Leakage Current @ V_{RWM}	5	μA
V_C	Maximum Clamping Voltage @ I_{PPM}	15.6	V

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Definition of Terms

Datasheet Identification	Product Status	Definition
Advance Information	Formative or In Design	This datasheet contains the design specifications for product development. Specifications may change in any manner without notice.
Preliminary	First Production	This datasheet contains preliminary data, and supplementary data will be published at a later date. Fairchild Semiconductor reserves the right to make changes at any time without notice in order to improve design.
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Obsolete	Not In Production	This datasheet contains specifications on a product that has been discontinued by Fairchild semiconductor. The datasheet is printed for reference information only.

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600 Watt Unidirectional Transient Voltage Suppressors

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Product	Product status	Pb-free Status	Package type	Leads	Packing method
SMBJ12A822	Custom		DO-214AA(SMB)	2	TAPE REEL
SMBJ12A822_NL	Full Production		DO-214AA(SMB)	2	TAPE REEL

** A sample button will appear if the part is available through Fairchild's on-line samples program. If there is no sample button, please contact a [Fairchild distributor](#) to obtain samples



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Qualification Support

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