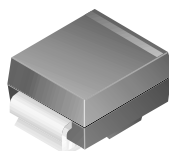


SMBJ12A822



DO-214AA(SMB)

Color Band Denotes Cathode
Device Marking: LE.

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	$^\circ\text{C/W}$
$R_{\theta JL}$	Thermal Resistance from Junction to Leads	20	$^\circ\text{C/W}$
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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CoolFET™	FASTr™	MicroFET™	PowerTrench®	SuperSOT™-6
CROSSVOLT™	FRFET™	MicroPak™	QFET™	SuperSOT™-8
DOME™	GlobalOptoisolator™	MICROWIRE™	QS™	SyncFET™
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E ² CMOS™	HiSeC™	MSXPro™	Quiet Series™	TruTranslation™
EnSigna™	I ² C™	OCX™	RapidConfigure™	UHC™
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Programmable Active Droop™		OPTOPLANAR™	SMART START™	

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PRODUCT STATUS DEFINITIONS

Definition of Terms

Datasheet Identification	Product Status	Definition
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No Identification Needed	Full Production	This datasheet contains final specifications. Fairchild Semiconductor reserves the right to make changes at any time without notice in order to improve design.
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