FAIRCHILD
SEMICONDUCTOR®

SMBJ12A933



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

600 Watt Unidirectional Transient Voltage Suppressor

Absolute Maximum Ratings (Note 1) T_A = 25°C unless otherwise noted

Symbol	Parameter	Value	Units
P _{PPM}	Peak Pulse Power Dissipation on 10/1000µs waveform	600	W
I _{PPM}	Peak Pulse Current on 10/1000µs 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
$R_{ ext{ hetaJA}}$	Thermal Resistance from Junction to Ambient	100	°C/W
R _{eJL}	Thermal Resistance from Junction to Leads	20	°C/W
T _{STG}	Storage Temperature Range	-65 to +175	°C
Τ _J	Operating Junction Temperature	-65 to +150	°C

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

Symbol	Parameter	Value	Units
V _{BR}	Breakdown Voltage at I _T = 1.0mA	13.2 – 13.8	V
αΤ	Maximum Temperature coefficient of V _{BR}	0.083	%/°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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CROSSVOLT™	FRFET™	MicroPak™	QFET [®]	SuperSOT™-8
DOME™	GlobalOptoisolator™	MICROWIRE™	QS™	SyncFET™
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PRODUCT STATUS DEFINITIONS

Definition of Terms

Product Status	Definition
Formative or In Design	This datasheet contains the design specifications for product development. Specifications may change in any manner without notice.
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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