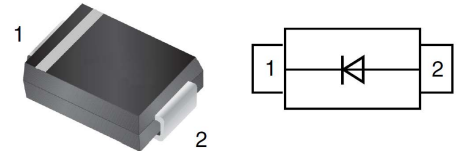


Schottky Barrier Rectifier in DO-214AC/SMA

Features

- Schottky barrier diodes
- Low forward voltage drop
- High Junction Temperature
- Moisture sensitivity: level 1, per J-STD-020
- Plastic package has Underwriters Laboratory Flammability Classification 94V-0
- Add suffix "E" for Halogen Free
- Halogen-free according to IEC 61249-2-21 definition



Applications

For use in low voltage, high frequency inverters, free wheeling, and polarity protection application

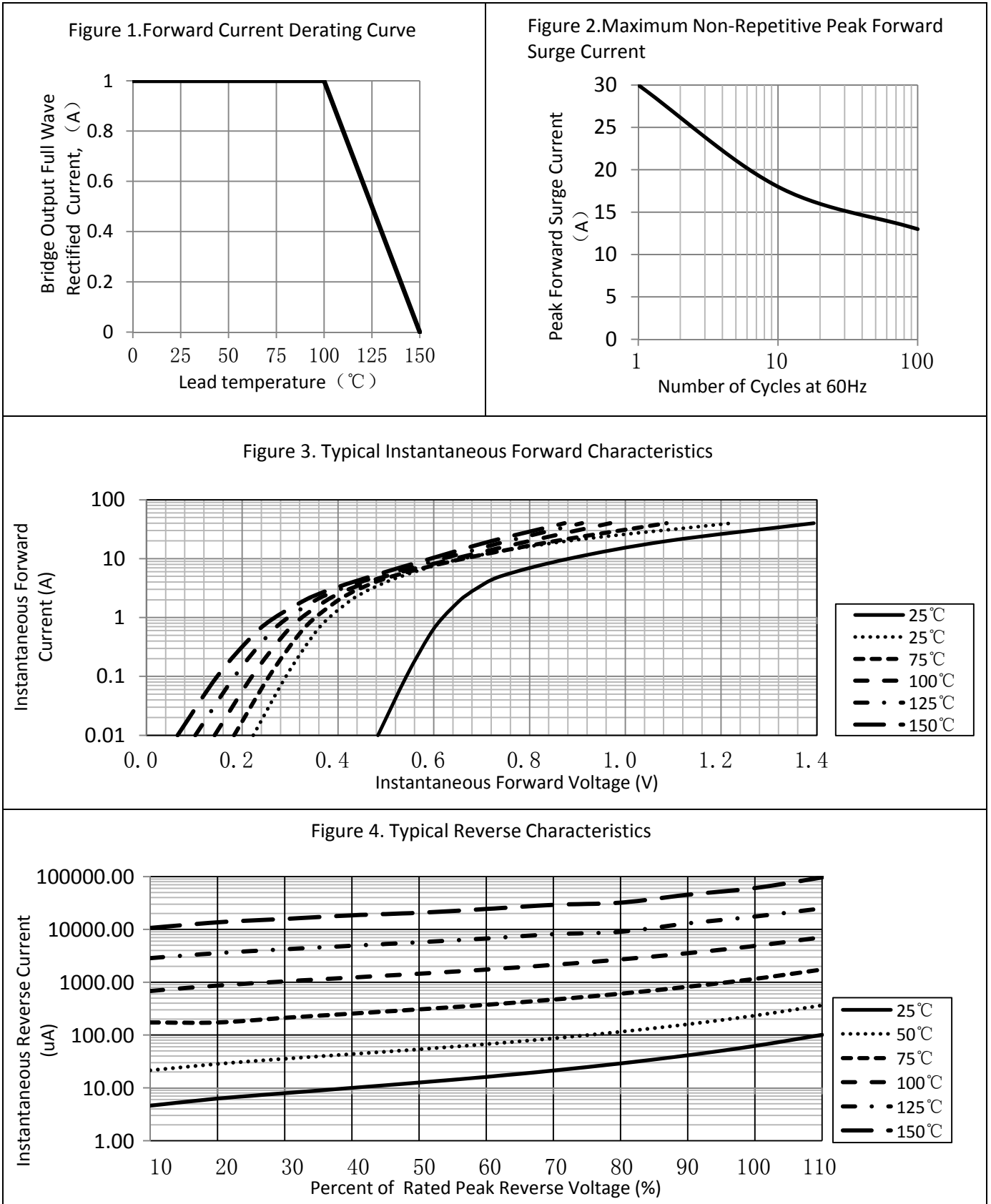
Absolute Maximum Ratings			
Ratings at 25 °C, ambient temperature unless otherwise specified			
Parameter	Symbol	MBRS130	Unit
Maximum repetitive peak reverse voltage	V_{RRM}	30	V
Maximum RMS voltage	V_{RMS}	21	V
Maximum DC blocking voltage	V_{DC}	30	V
Maximum average forward rectified current	$I_{F(AV)}$	1.0	A
Peak forward surge current 8.3 ms single half sine-wave superimposed on rated load	I_{FSM}	30	A
Operating junction and storage temperature range	T_J, T_{STG}	- 55 to + 150	°C

Electrical Characteristics				
$(T_A = 25\text{ °C unless otherwise specified})$				
Parameter	Test Conditions	Symbol	MBRS130	Unit
Maximum instantaneous forward voltage	$I_F=3A, T_A=25\text{ °C}$	V_F	0.50	V
Maximum DC reverse current at rated DC blocking voltage	$T_A=25\text{ °C}$	I_R	0.50	mA
	$T_A=125\text{ °C}$		10	
Typical junction capacitance	4.0 V, 1 MHz	C_J	110	pF

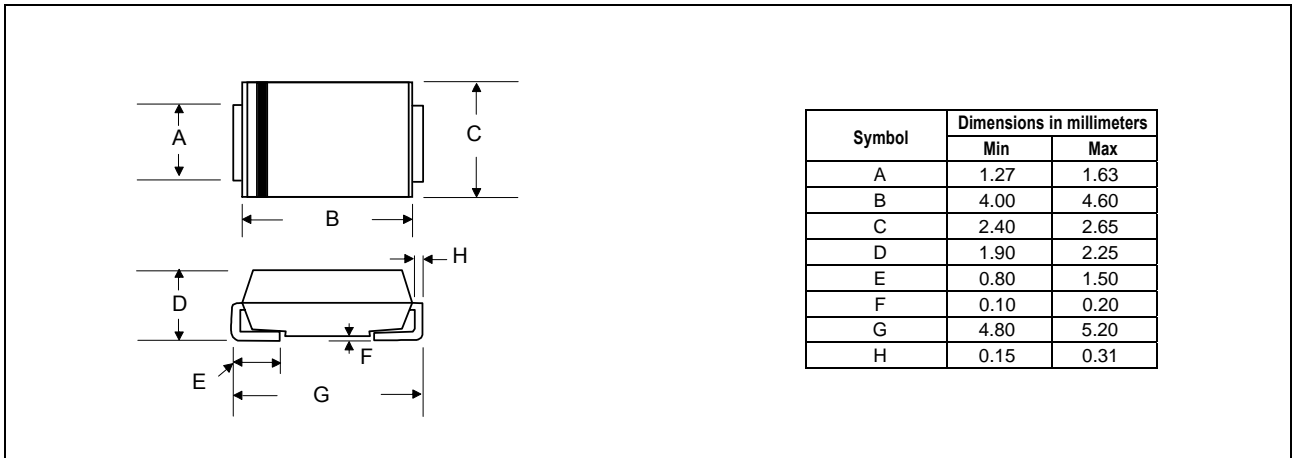
Thermal Characteristics			
Parameter	Symbol	MBRS130	Unit
Typical thermal resistance ⁽¹⁾	$R_{\theta JA}$	85	°C/W
	$R_{\theta JC}$	46	
	$R_{\theta JI}$	25	

Note1: Thermal resistance from junction to lead, mounted on PCB with 5.0x5.0mm copper pads

Typical Characteristics ($T_{amb} = 25\text{ }^{\circ}\text{C}$ unless otherwise specified)



Package Dimensions



Ordering information

Order code	Package	Packaging option	Base quantity	Packaging specification
MBRS130	DO-214AC/SMA	Tape and reel	5000pcs / reel	EIA STD RS-481

Revision history

Date	Revision	Changes
23-May-2020	1.0	Initial release

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