


1A High Voltage Rectifier
Reverse Voltage - 1800V
Forward Current - 1 A
FEATURES

- Construction utilizes void-free molded plastic technique
- Low profile package
- High forward surge current capability
- High temperature soldering guaranteed: 250°C/10 seconds, 0.375"(9.5mm) lead length, 5 lbs. (2.3kg) tension
- Lead free in comply with EU RoHS 2011/65/EU directives

Pinning

1.Cathode	2.Anode
	
DO-214AC/SMA	

Marking Code

R1800F	YFW R1800F
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MECHANICAL DATA

- Case: DO-214AC/SMA
- Terminals: Solderable per MIL-STD-750, Method 2026
- Approx. Weight: 0.07g / 0.002oz

Absolute Maximum Ratings and Electrical characteristics

Ratings at 25°C ambient temperature unless otherwise specified. Single phase, half wave, 60Hz resistive or inductive load, for capacitive load, derate by 20 %

Parameter	Symbols	R1800F	Units
Maximum Repetitive Peak Reverse Voltage	V_{RRM}	1800	V
Maximum RMS voltage	V_{RMS}	1260	V
Maximum DC Blocking Voltage	V_{DC}	1800	V
Maximum Average Forward Rectified Current at $T_c = 125^\circ\text{C}$	$I_{F(AV)}$	1.0	A
Peak Forward Surge Current 8.3 ms Single Half Sine Wave Superimposed on Rated Load	I_{FSM}	30.0	A
Maximum Instantaneous Forward Voltage at 1 A	V_F	2.5	V
Maximum DC Reverse Current $T_a = 25^\circ\text{C}$ at Rated DC Blocking Voltage $T_a = 100^\circ\text{C}$	I_R	10.0 200.0	μA
Maximum reverse recovery time ⁽¹⁾	T_{rr}	500	ns
Typical Junction Capacitance ⁽²⁾	C_j	15	pF
Typical Thermal Resistance ⁽³⁾	$R_{\theta JA}$	50	$^\circ\text{C/W}$
Operating and Storage Temperature Range	T_j, T_{stg}	-55 ~ +150	$^\circ\text{C}$

(1) Test Conditions: $I_F=0.5\text{A}$, $I_R=1.0\text{A}$, $I_{RR}=0.25\text{A}$

(2) Measured at 1MHz and applied reverse voltage of 4.0V D.C.

(3) Thermal resistance from junction to ambient at 0.375"(9.5mm) lead length, P.C.B. mounted

FIG. 1- FORWARD CURRENT DERATING CURVE

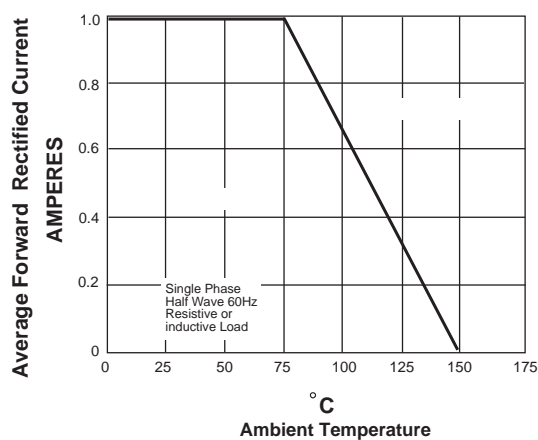


FIG. 2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

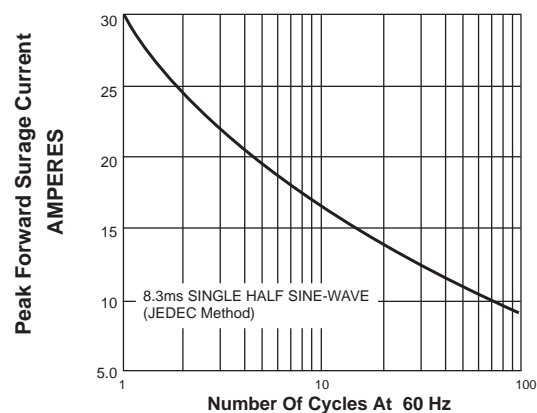
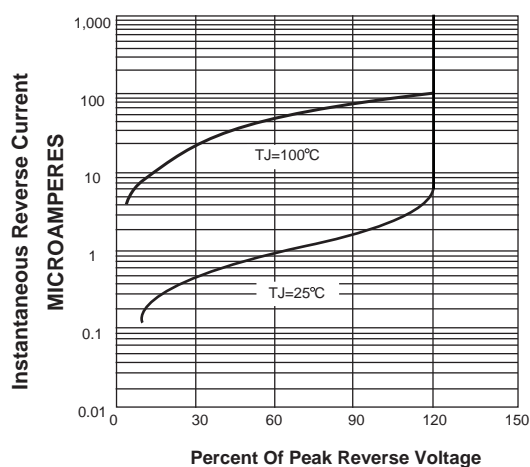


FIG. 3-TYPICAL REVERSE CHARACTERISTICS



Marking Diagram



Ordering information

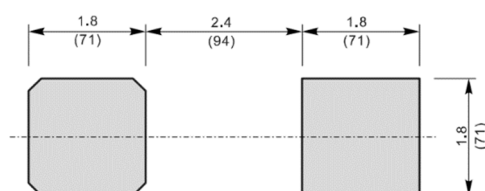
Package	Packing Description	Packing Quantity
DO-214AC SMA	Tape/Reel, 13" reel	5000PCS/Reel 50000PCS/Carton

Package Dimensions

DO-214AC SMA

Dim.	Millimeter(mm)		mil	
	Min.	Max.	Min.	Max.
A	1.9	2.45	75	96
D	4.0	4.5	157	181
E	2.5	2.8	100	110
H _E	4.7	5.2	185	205
c	0.15	0.31	6	12
e	1.3	1.8	51	71
g	0.9	1.5	35	59
b	0.05	0.2	2	7.9
a	0.3		12	

The recommended mounting pad size



Unit : $\frac{\text{mm}}{(\text{mil})}$

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