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R1200F THRU R2000F

Features

- Lead Free Finish/RoHS Compliant (Note1) ("P" Suffix designates Compliant. See ordering information)
- High Current Capability
- Fast Switching For Higher Efficiency
- Epoxy meets UL 94 V-0 flammability rating
- Moisture Sensitivity Level 1

Maximum Ratings

- Operating Temperature: -55°C to +150°C
- Storage Temperature: -55°C to +150°C

Catalog Number	Device Marking	Maximum Recurrent Peak Reverse Voltage	Maximum RMS Voltage	Maximum DC Blocking Voltage
R1200F	R1200F	1200V	840V	1200V
R1500F	R1500F	1500V	1050V	1500V
R1800F	R1800F	1800V	1260V	1800V
R2000F	R2000F	2000V	1400V	2000V

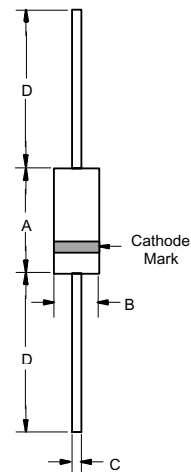
Electrical Characteristics @ 25°C Unless Otherwise Specified

Average Forward Current	$I_{F(AV)}$	500mA	$T_A = 50^\circ\text{C}$
Peak Forward Surge Current	I_{FSM}	30A	8.3ms, half sine
Maximum Instantaneous Forward Voltage R1200F-R1800F R2000F	V_F	2.4V 4.0V	$I_{FM} = 0.5A;$ $T_A = 50^\circ\text{C}$
Maximum DC Reverse Current At Rated DC Blocking Voltage	I_R	5.0μA 50μA	$T_A = 25^\circ\text{C}$ $T_A = 100^\circ\text{C}$
Typical Junction Capacitance	C_J	30pF	Measured at 1.0MHz, $V_R=4.0V$
Maximum Reverse Recovery Time	T_{rr}	500nS	

Note: 1. High Temperature Solder Exemption Applied, see EU Directive Annex 7.

500 Milliamp High Voltage Fast Recovery Silicon Rectifier 1200 to 2000 Volts

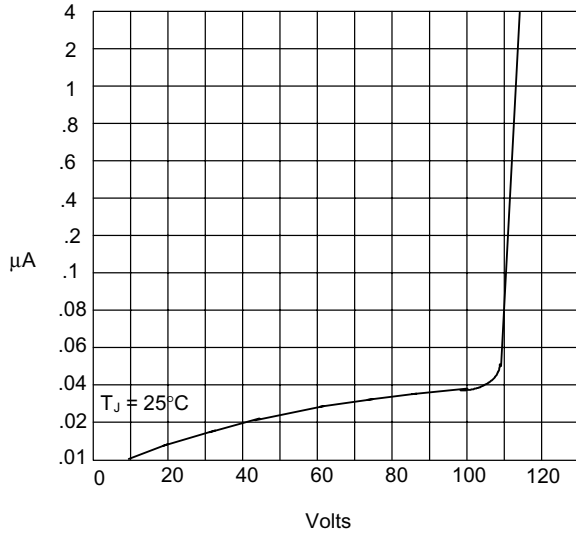
DO-41



DIM	DIMENSIONS				NOTE
	INCHES		MM		
A	MIN	MAX	MIN	MAX	
A	.166	.205	4.10	5.20	
B	.080	.107	2.00	2.70	
C	.028	.034	.70	.90	
D	1.000	---	25.40	---	

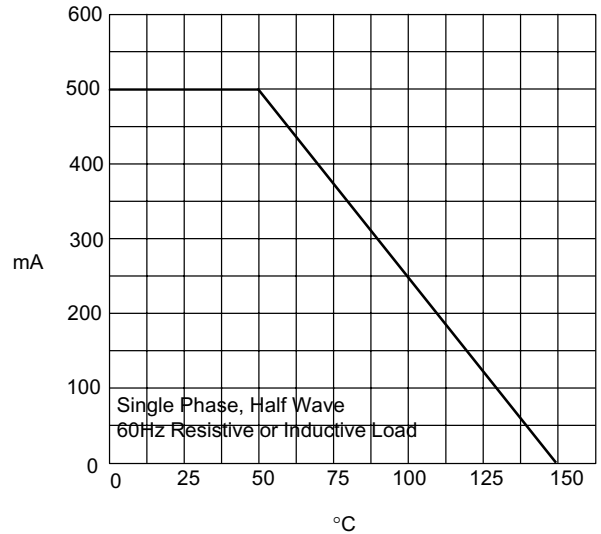
R1200F thru R2000F

Figure 1
Typical Reverse Characteristics



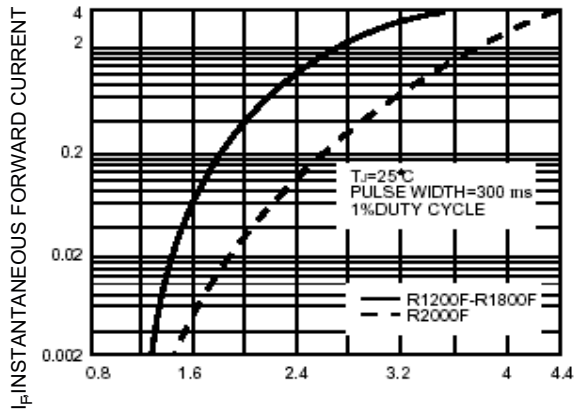
Instantaneous Reverse Current - Micro Amps versus
Percent Of Rated Peak Reverse Voltage - Volts

Figure 2
Forward Derating Curve



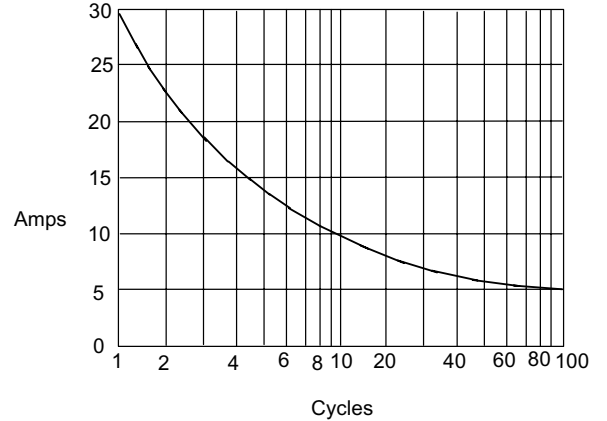
Average Forward Rectified Current - Amperes versus
Ambient Temperature - °C

Figure 3
Typical Forward Characteristics



V_F, INSTANTANEOUS FORWARD VOLTAGE (V)

Figure 4
Peak Forward Surge Current



Peak Forward Surge Current - Amperes versus
Number Of Cycles At 60Hz - Cycles