

AMOSPEC

URF2005 thru URF2020

Switchmode Full Plastic Dual Ultrafast Power Rectifiers

... Designed for use in switching power supplies, inverters and as free wheeling diodes. These state-of-the-art devices have the following features:

- * High Surge Capacity
- * Low Power Loss, High efficiency
- * Glass Passivated chip junctions
- * 150 °C Operating Junction Temperature
- * Low Stored Charge Majority Carrier Conduction
- * Low Forward Voltage, High Current Capability
- * High-Switching Speed 35 Nanosecond Recovery Time
- * Plastic Material used Carries Underwriters Laboratory

MAXIMUM RATINGS

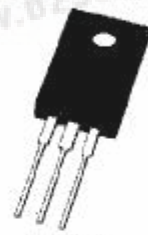
Characteristic	Symbol	URF20				Unit
		05	10	15	20	
Peak Repetitive Reverse Voltage Working Peak Reverse Voltage DC Blocking Voltage	V_{RRM} V_{RWM} V_R	50	100	150	200	V
RMS Reverse Voltage	$V_{R(RMS)}$	35	70	105	140	V
Average Rectifier Forward Current Per Leg Per Total Device	$I_{F(AV)}$ $T_c=125^\circ\text{C}$	10 20				A
Peak Repetitive Forward Current (Rate V_R , Square Wave, 20kHz, $T_c=125^\circ\text{C}$)	I_{FM}	20				A
Non-Repetitive Peak Surge Current (Surge applied at rate load conditions halfwave, single phase, 60Hz)	I_{FSM}	150				A
Operating and Storage Junction Temperature Range	T_J, T_{stg}	- 65 to + 150				°C

ELECTRICAL CHARACTERISTICS

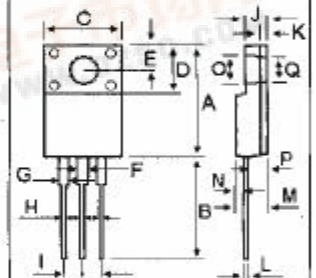
Characteristic	Symbol	URF20				Unit
		05	10	15	20	
Maximum Instantaneous Forward Voltage ($I_F=10$ Amp, $T_c=25^\circ\text{C}$) ($I_F=10$ Amp, $T_c=125^\circ\text{C}$)	V_F	0.975 0.880				V
Maximum Instantaneous Reverse Current (Rated DC Voltage, $T_c=25^\circ\text{C}$) (Rated DC Voltage, $T_c=125^\circ\text{C}$)	I_R	10 500				µA
Reverse Recovery Time ($I_F=0.5$ A, $I_R=1.0$, $t_{rr}=0.25$ A)	T_{rr}	35				ns
Typical Junction Capacitance (Reverse Voltage of 4 volts & $f=1$ MHz)	C_p	120				pF

ULTRA FAST
RECTIFIERS

20 AMPERES
50 – 200 VOLTS



ITO-220



DIM	MILLIMETERS	
	MIN	MAX
A	15.05	15.15
B	13.35	13.45
C	10.00	10.10
D	6.55	6.65
E	2.65	2.75
F	1.55	1.65
G	1.15	1.25
H	0.55	0.65
I	2.50	2.60
J	3.00	3.20
K	1.10	1.20
L	0.55	0.65
M	4.40	4.60
N	1.15	1.25
P	2.65	2.75
O	3.35	3.45
Q	3.15	3.25

