

Pb Free Plating Product

UF10C20S/UF10C40S/UF10C60S



10.0 Ampere Heatsink Dual Series Connection Ultra Fast Recovery Rectifiers

<p>Features</p> <ul style="list-style-type: none"> ※ ThinkiSemi latest&matured process FRD/FRED ※ Fast switching for high efficiency ※ Low forward voltage drop ※ High current capability ※ Low reverse leakage current ※ High surge current capability <p>Application</p> <ul style="list-style-type: none"> ※ Automotive Inverters and Solar Inverters ※ Car Audio Amplifiers and Sound Device Systems ※ Plating Power Supply, Motor Control, UPS and SMPS etc. <p>Mechanical Data</p> <ul style="list-style-type: none"> ※ Case: Open Metal Package TO-220AB/TO-220-3L ※ Epoxy: UL 94V-0 rate flame retardant ※ Terminals: Solderable per MIL-STD-202 method 208 ※ Polarity: As marked on diode body ※ Mounting position: Any ※ Weight: 2.2 gram approximately 	<p>TO-220AB/TO-220-3L Unit:inch(mm)</p> <div style="display: flex; justify-content: space-around; margin-top: 10px;"> <div style="text-align: center;"> <p>Positive Common Cathode Suffix "C"</p> </div> <div style="text-align: center;"> <p>Negative Common Anode Suffix "A"</p> </div> <div style="text-align: center;"> <p>Doubler Tandem Polarity Suffix "D"</p> </div> <div style="text-align: center;"> <p>Series Tandem Polarity Suffix "S"</p> </div> </div>
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MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

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

PARAMETER	SYMBOL	UF10C10S	UF10C30S	UF10C50S	UNIT
		UF10C20S	UF10C40S	UF10C60S	
Maximum Recurrent Peak Reverse Voltage	VRRM	200	400	600	V
Maximum RMS Voltage	VRMS	140	280	420	V
Maximum DC Blocking Voltage	VDC	200	400	600	V
Maximum Average Forward Rectified Current Tc=100°C (Total Device 2x5.0A=10.0A)	IF(AV)	10.0			A
Peak Forward Surge Current, 8.3ms single Half sine-wave superimposed on rated load (JEDEC method)	IFSM	125			A
Maximum Instantaneous Forward Voltage @5.0A (Per Diode/Per Leg)	VF	0.85-0.95	1.00-1.25	1.25-1.50	V
Maximum DC Reverse Current @TJ=25°C At Rated DC Blocking Voltage @TJ=125°C	IR	1.0 5.0			µA µA
Maximum Reverse Recovery Time (Note1)	Trr	25-35			nS
Typical Junction Capacitance (Note 2)	CJ	65			pF
Typical Thermal Resistance (Note 3)	RθJC	1.5			°C/W
Operating Junction and Storage Temperature Range	TJ,TSTG	-55 to +175			°C

Note:(1)Reverse recovery test conditions IF = 0.5A, IR = 1.0A, Irr = 0.25A.

Note:(2)Measured at 1.0 MHz and applied reverse voltage of 4.0 Volts DC.

Note:(3)Thermal Resistance junction to case.

FIG.1 - FORWARD CURRENT DERATING CURVE

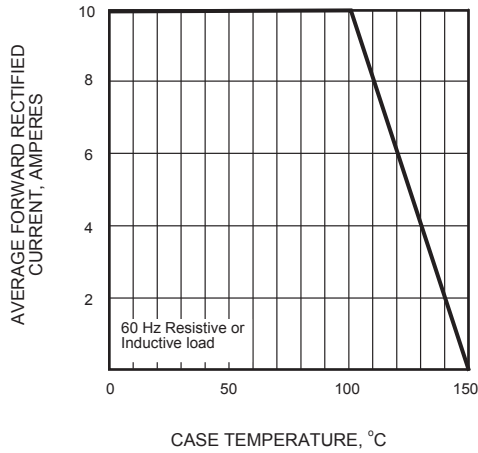


FIG.2 - MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

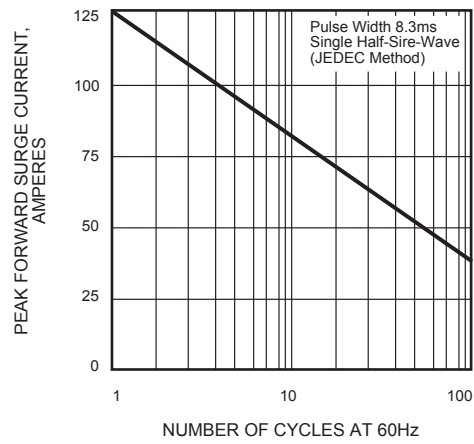


FIG.3 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

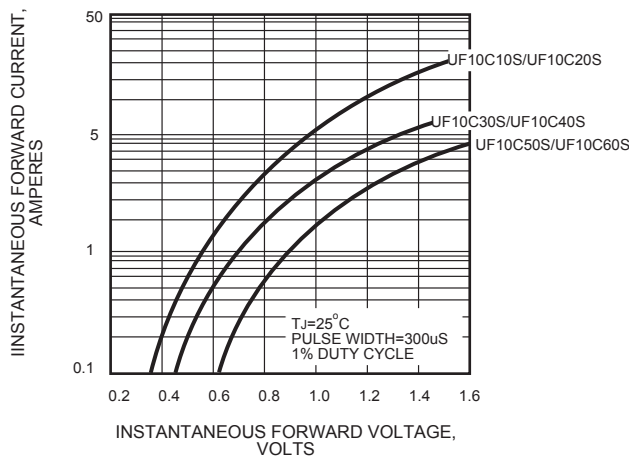


FIG.4 - TYPICAL REVERSE CHARACTERISTICS

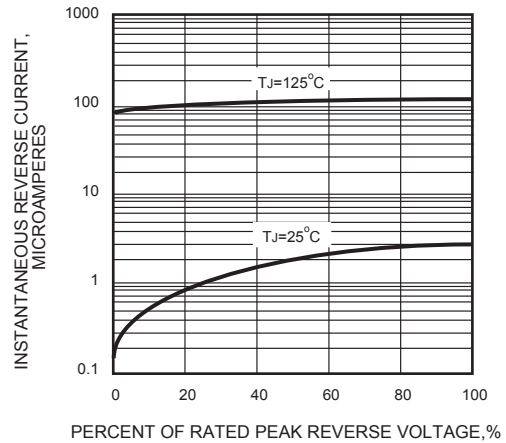


FIG.5 - TYPICAL JUNCTION CAPACITANCE

