Pb Free Plating Product

U30C20C/U30C40C/U30C60C

30 Ampere Heatsink Dual Common Cathode Ultra Fast Recovery Rectifiers

Features

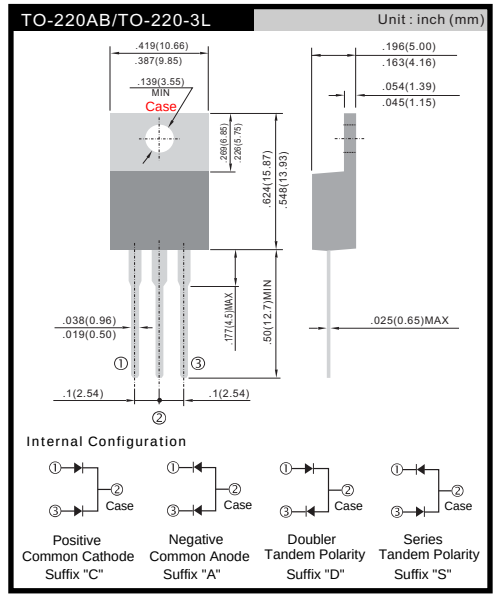
- ThinkiSemi P/G technology with ultra fast recovery time
- Low forward voltage drop
- High current capability
- Low reverse leakage current
- High surge current capability

Application

- Automotive Inverters and Solar Inverters
- Plating Power Supply,SMPS,Motor Control and UPS
- Car Audio Amplifiers and Sound Device Systems

Mechanical Data

- Case: Heatsink 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



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%.

	SYMBOL	U30C20C	U30C40C	U30C60C	UNIT
Maximum Recurrent Peak Reverse Voltage	V_{RRM}	200	400	600	V
Maximum RMS Voltage	V_{RMS}	140	280	420	V
Maximum DC Blocking Voltage	V_{DC}	200	400	600	V
Maximum Average Forward Rectified Current T_C=125°C (Total Device 2x15A=30A)	$I_{F(AV)}$	30.0			A
Peak Forward Surge Current, 8.3ms single Half sine-wave superimposed on rated load (JEDEC method)	I_{FSM}	450			A
Maximum Instantaneous Forward Voltage @ 15.0 A (Per Diode/Per Leg)	V_F	0.98	1.3	1.7	V
Maximum DC Reverse Current @T_J=25°C At Rated DC Blocking Voltage @T_J=125°C	I_R	5 50			uA uA
Maximum Reverse Recovery Time (Note 1)	Trr	25-50			nS
Typical junction Capacitance (Note 2)	C_J	150			pF
Operating Junction and Storage Temperature Range	T_J, T_{STG}	-55 to +175			°C

NOTES : (1) Reverse recovery test conditions I_F = 0.5A I_R = 1.0A Irr = 0.25A.
(2) Thermal Resistance junction to terminal.
(3) Measured at 1.0 MHz and applied reverse voltage of 4.0 Volts DC.

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FIG.1 - FORWARD CURRENT DERATING CURVE

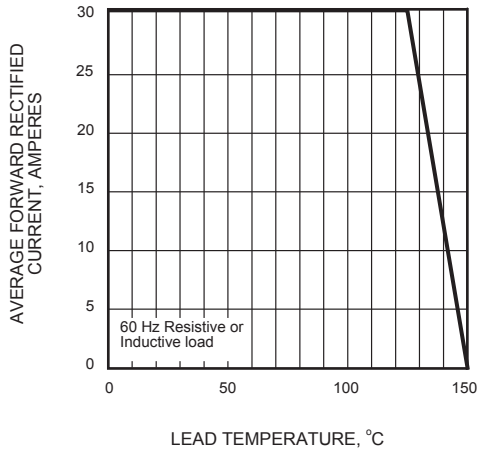


FIG.2 - MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

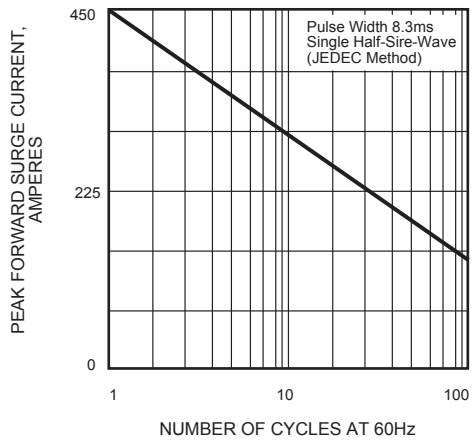


FIG.3 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

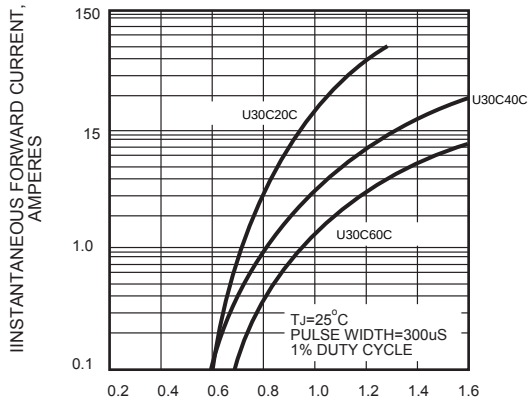


FIG.4 - TYPICAL REVERSE CHARACTERISTICS

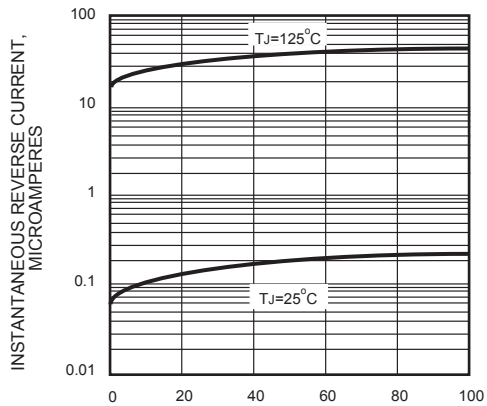
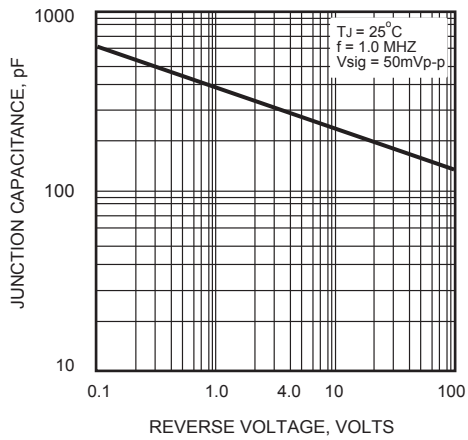


FIG.5 - TYPICAL JUNCTION CAPACITANCE



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