

Pb Free Plating Product

10F20HF3/10F40HF3/10F60HF3



10.0 Ampere Insulated Dual Common Cathode Ultra Fast Recovery Rectifiers

Features	ITO-220AB(TO-220F-3L) Unit:inch(mm)
※ 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	
Application ※ Automotive Inverters and Solar Inverters ※ Car Audio Amplifiers and Sound Device Systems ※ Plating Power Supply, Motor Control, UPS and SMPS etc.	
Mechanical Data ※ Case: Full Plastic Isolated Package ITO-220AB ※ 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: 2.0 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%.

PARAMETER	SYMBOL	10F20HF3	10F40HF3	10F60HF3	UNIT
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	3.0			°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

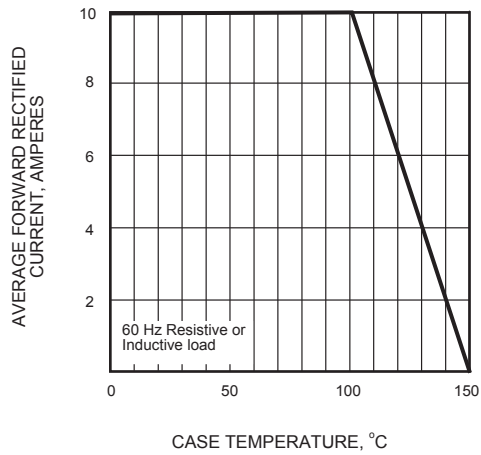


FIG.2 - MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

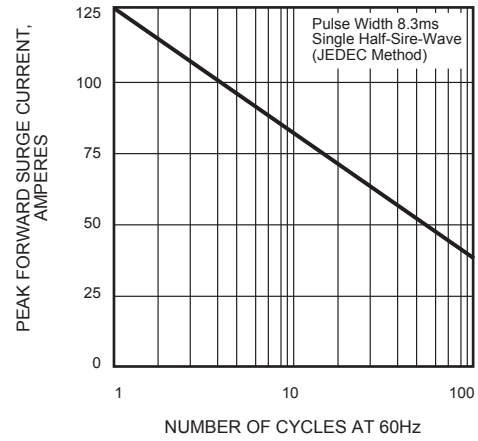


FIG.3 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

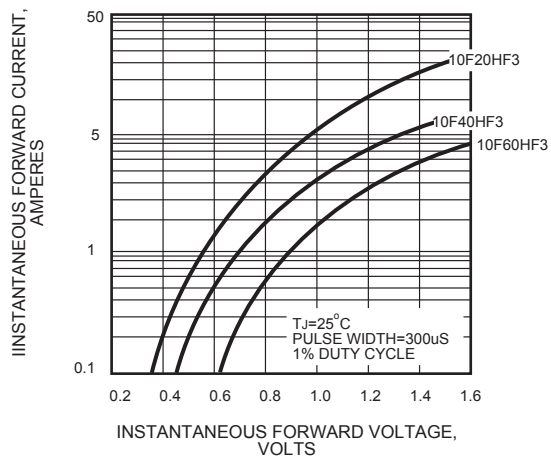


FIG.4 - TYPICAL REVERSE CHARACTERISTICS

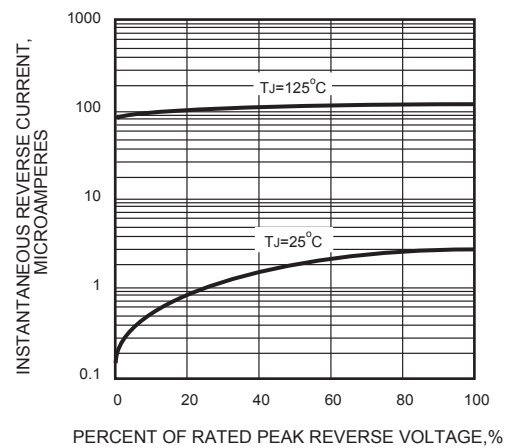


FIG.5 - TYPICAL JUNCTION CAPACITANCE

