

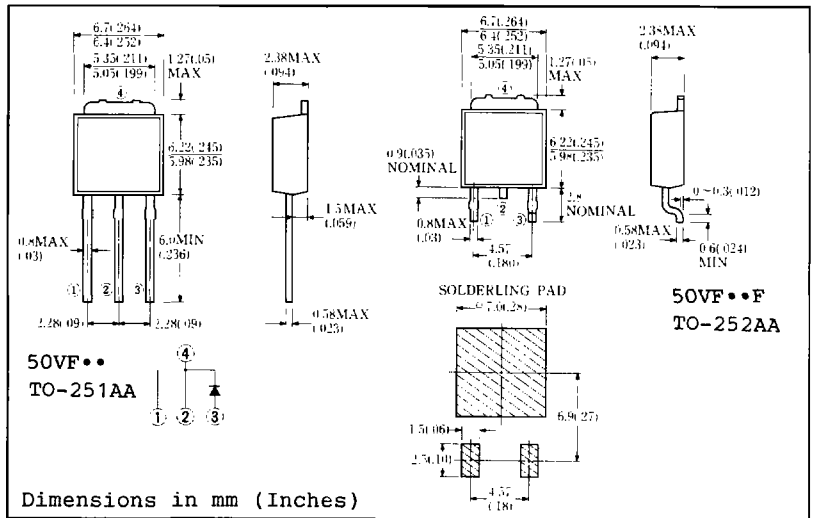
FAST RECOVERY DIODE

5.5A/100~200V/trr: 40nsec

50VF10 50VF20
50VF10F 50VF20F

FEATURES

- TO-251AA Case
- TO-252AA Case, Surface Mount Device
- Ultra - Fast Recovery
- Low Forward Voltage Drop
- Low Power Loss
- High Surge Capability
- 100 Volts thru 400 Volts Types Available
- Packaged in 16mm Tape and Reel (TO-252AA Case)



MAXIMUM RATINGS

Voltage Rating	TYPE	◆ 50VF10 ◆ 50VF10F	50VF20 50VF20F	Unit	
	Symbol				
Repetitive Peak Reverse Voltage	V_{RRM}	100	200	V	
Non-Repetitive Peak Reverse Voltage	V_{RSM}	110	220	V	
Electrical Rating	Symbol	Condition		Rating	Unit
Average Rectified Output Current	I_O	180° rectangular wave conduction $T_c = 102^\circ\text{C}$		5.5	A
		180° sinusoidal wave conduction $T_c = 108^\circ\text{C}$		5.0	
RMS Forward Current	$I_{F(RMS)}$			7.9	A
Peak One-cycle Forward Surge Current	I_{FSM}	50Hz half sine wave, non-repetitive		45	A
Operating Junction Temperature Range	T_{jw}			-40 to 150	°C
Storage Temperature Range	T_{stg}			-40 to 150	°C

ELECTRICAL & THERMAL CHARACTERISTICS

Characteristics	Symbol	Test Condition	Max.	Unit
Peak Forward Voltage	V_{FM}	$I_{FM} = 5.0A$ $T_j = 25^\circ\text{C}$	1.08	V
Peak Reverse Current	I_{RM}	$V_{RM} = V_{RRM}$ $T_j = 25^\circ\text{C}$	10	μA
Reverse Recovery Time	t_{rr}	$I_{FM} = 5A$ $-di/dt = 50A/\mu\text{s}$ $T_j = 25^\circ\text{C}$	40	ns
Thermal Resistance	$R_{th(j-c)}$	Junction to Case	6	°C/W

◆ For spare parts only

FIG.1-FORWARD VOLTAGE VS. FORWARD CURRENT

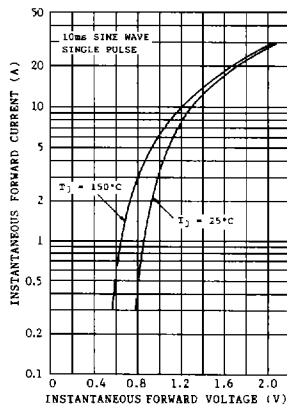


FIG.2-AVERAGE FORWARD POWER DISSIPATION

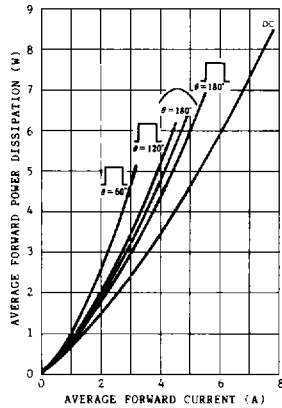


FIG.3-AVERAGE FORWARD CURRENT VS. CASE TEMPERATURE

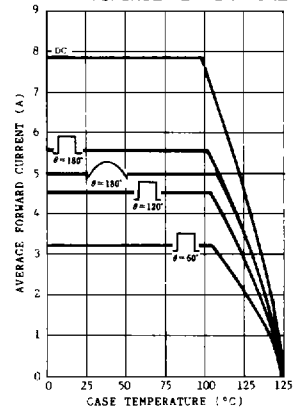


FIG.4-SURGE CURRENT RATINGS

