

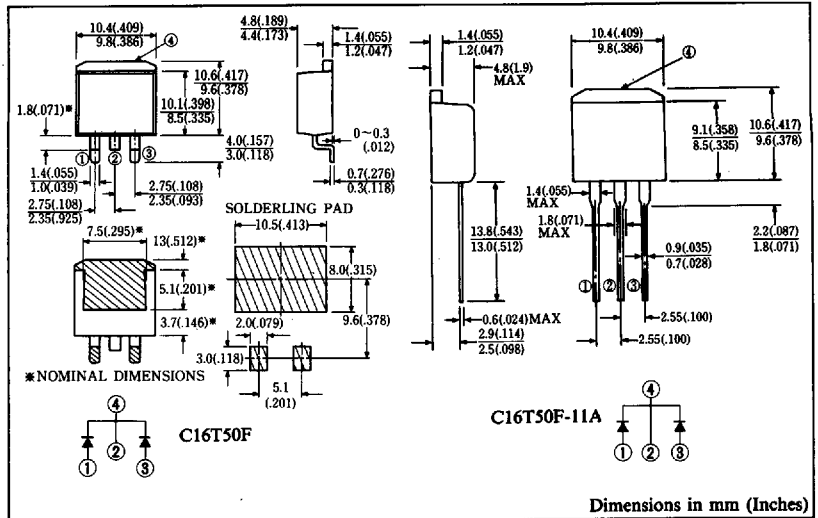
FAST RECOVERY DIODE

17.7A/500V/trr: 55nsec

C16T50F FCF16A50
C16T50F-11A

FEATURES

- **SQUARE-PAK TO-263AB (SMD)** Packaged in 24mm Tape and Reel : C16T50F
- **Tablets TO-220:** C16T50F-11A
- **TO-220AB Fully Molded Isolation** : FCF16A50
- **Ultra-Fast Recovery**
- **Dual Diodes - Cathode Common**
- **Low Forward Voltage Drop**
- **High Surge Capability**
- **100 Volts through 600 Volts Types Available**



Approx. Net Weight: 1.4 Grams

1.75 Grams

MAXIMUM RATINGS

Voltage Rating	Type	C16T50F	C16T50F-11A	FCF16A50	Unit
	Symbol				
Repetitive Peak Reverse Voltage	V_{RRM}	500			V
Electrical Rating	Symbol	Condition		Rating	Unit
Average Rectified Output Current	I_o	Full rectangular wave conduction $T_c = 95^\circ\text{C}$		17.7	A
		Full sinusoidal wave conduction $T_c = 104^\circ\text{C}$		16	
RMS Forward Current	$I_{F(RMS)}$			18	A
Peak One-cycle Forward Surge Current	I_{FSM}			120	A
Operating Junction Temperature Range	T_{jw}	50Hz full sine 1 cycle, non-repetitive		-40 to 150	$^\circ\text{C}$
Storage Temperature Range	T_{stg}			-40 to 150	$^\circ\text{C}$
Mounting Torque	F_{tor}	Recommended torque		0.5 (5.1)	N·m (kgf·cm)

ELECTRICAL & THERMAL CHARACTERISTICS

Characteristics	Symbol	Test Condition	Max.	Unit
Peak Forward Voltage	V_{FM}	$I_{FM} = 8\text{ A}$ $T_j = 25^\circ\text{C}$ per diode leg	1.4	V
Peak Reverse Current	I_{RM}	$V_{RM} = V_{RRM}$ $T_j = 25^\circ\text{C}$ per diode leg	30	μA
Reverse Recovery Time	t_{rr}	$I_{FM} = 8\text{ A}$ $-di/dt = 50\text{ A}/\mu\text{s}$ $T_j = 25^\circ\text{C}$ per diode	55	ns
Thermal Resistance	$R_{th(j-c)}$	Junction to Case	2	$^\circ\text{C}/\text{W}$
	$R_{th(c-f)}$	Case to Fin (FCF16A50)	1.5	

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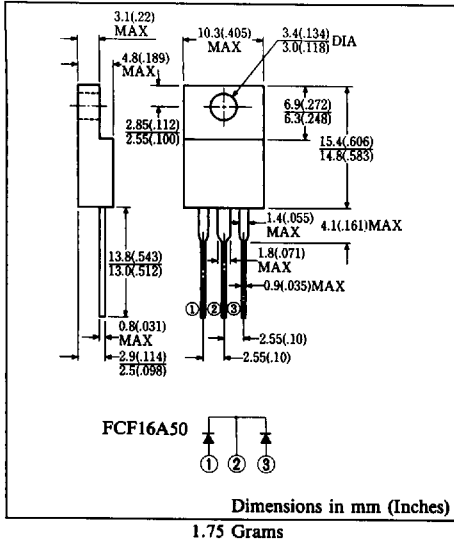


FIG. 1 - FORWARD VOLTAGE VS. FORWARD CURRENT

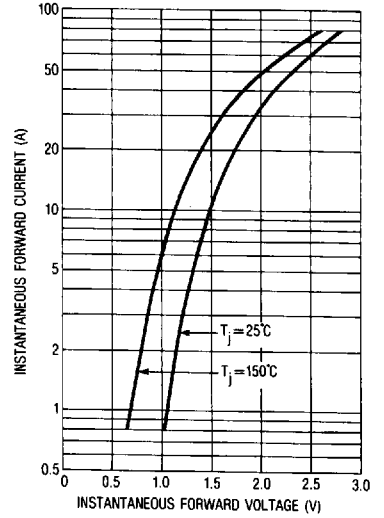


FIG. 2 - AVERAGE FORWARD POWER DISSIPATION

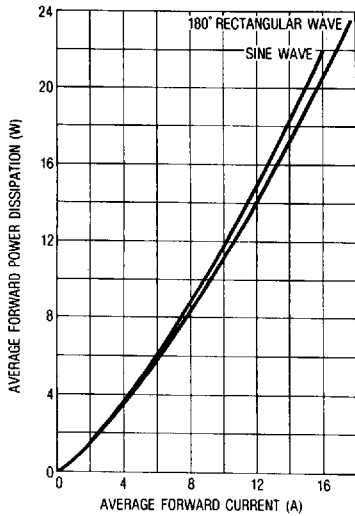


FIG. 3 - AVERAGE FORWARD CURRENT VS. CASE TEMPERATURE

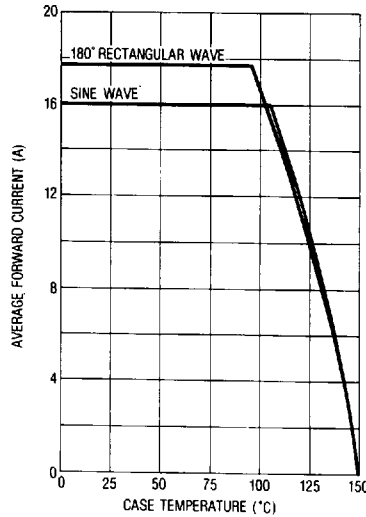


FIG. 4 - SURGE CURRENT RATINGS

