



SF1610CT THRU SF1660CT

Reverse Voltage - 100 to 600 Volts Forward Current - 16.0 Ampere

ULTRA FAST RECOVERY RECTIFIER

Features

- ◆ The plastic package carries Underwriters Laboratory Flammability Classification 94V-0
- ◆ Construction utilizes void-free molded plastic technique
- ◆ Low reverse leakage
- ◆ High forward surge current capability
- ◆ High temperature soldering guaranteed: 250°C, 0.25"(6.35mm) from case for 10 seconds

Mechanical Data

Case : JEDEC TO-220AB Molded plastic body

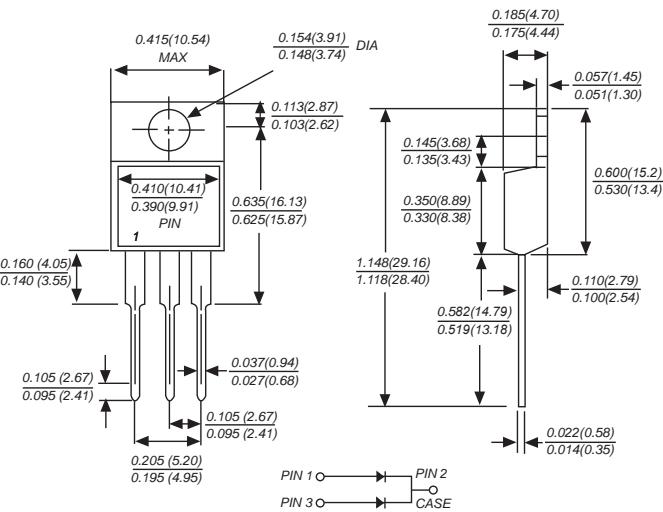
Terminals : Solder plated, solderable per MIL-STD-750, Method

2026 Polarity : As marked

Mounting Position : Any

Weight : 0.080 ounce, 2.24 grams

TO-220AB



Dimensions in inches and (millimeters)

Maximum Ratings And Electrical Characteristics

Ratings at 25°C ambient temperature unless otherwise specified.

Single phase half-wave 60Hz, resistive or inductive load, for capacitive load current derate by 20%.

Parameter	SYMBOLS	MDD SF1610CT	MDD SF1620CT	MDD SF1630CT	MDD SF1640CT	MDD SF1650CT	MDD SF1660CT	UNITS	
Marking Code									
Maximum repetitive peak reverse voltage	V_{RRM}	100	200	300	400	500	600	V	
Maximum RMS voltage	V_{RMS}	70	140	210	280	350	420	V	
Maximum DC blocking voltage	V_{DC}	100	200	300	400	500	600	V	
Maximum average forward rectified current (see fig.1)	$I_{(AV)}$	16.0						A	
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC Method)	I_{FSM}	90						A	
Maximum instantaneous forward voltage at 8.0A	V_F	1.0	1.3	1.7				V	
Maximum DC reverse current $T_A=25^\circ C$ at rated DC blocking voltage $T_A=100^\circ C$	I_R	10			500				uA
Typical junction capacitance (NOTE 1)	C_J	170			130				pF
Typical thermal resistance (NOTE 2)	$R_{\theta JC}$	3.5						$^\circ C/W$	
Maximum Reverse Recovery time (NOTE 3)	T_{rr}	35						nS	
storage temperature range	$T_j T_{STG}$	-55 to +150						$^\circ C$	

Note:1.Measured at 1MHz and applied reverse voltage of 4.0V D.C.

2.Thermal resistance from junction to case.

3..Reverse Recovery Test Conditions: $I_F=0.5A$, $I_R=1A$, $I_{rr}=0.25A$.



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Ratings And Characteristic Curves

Fig.1 FORWARD CURRENT DERATING CURVE

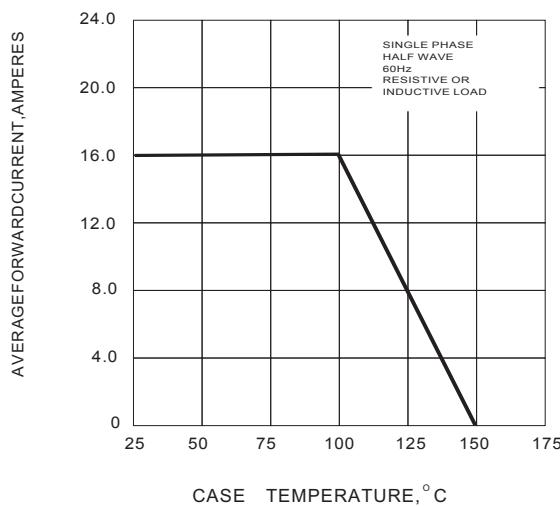


Fig.2 TYPICAL JUNCTION CAPACITANCES

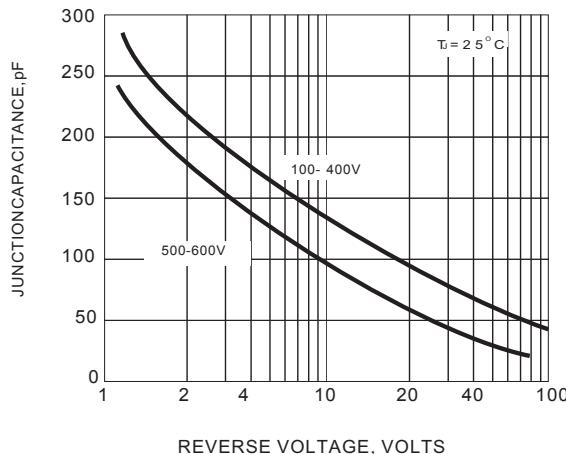


Fig.3 FORWARD CHARACTERISTICS

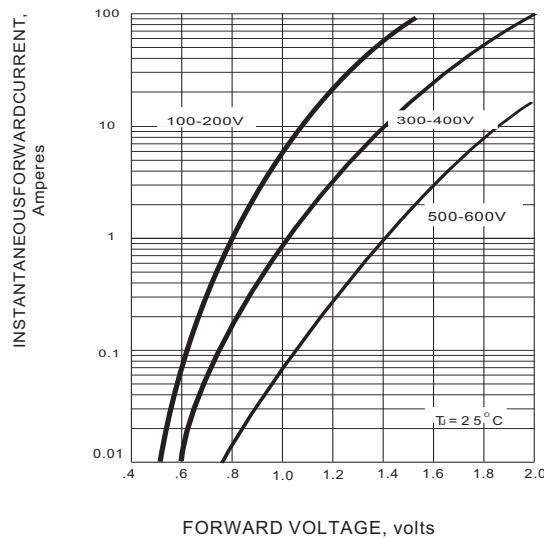


Fig.4 TYPICAL REVERSE CHARACTERISTICS

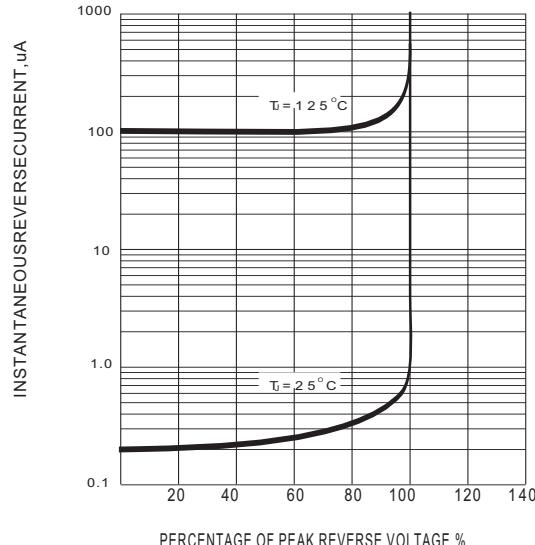


Fig.5 PEAK FORWARD SURGE CURRENT

