

RoHS Compliant Product  
A suffix of "-C" specifies halogen free

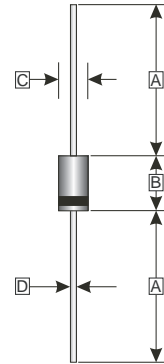
### FEATURES

- High Surge Capacity
- 175°C Operating Junction Temperature
- Low Power Loss, High Efficiency
- High-Switching Speed 35 Nanosecond Recovery Time
- Low Forward Voltage, High Current Capability
- Low Stored Charge Majority Carrier Conduction
- Plastic Material Used Carries Underwriters Laboratory Flammability Classification 94V-O

### MECHANICAL DATA

Case: Epoxy Molded  
Weight: 1.2 grams (approximate)  
Polarity: Cathode indicated by polarity band.

**DO-27(DO-201)**



REF.	Millimeter	
	Min.	Max.
A	25.4 (TYP)	
B	7.20	9.53
C	5.00	5.60
D	1.20	1.32

### MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

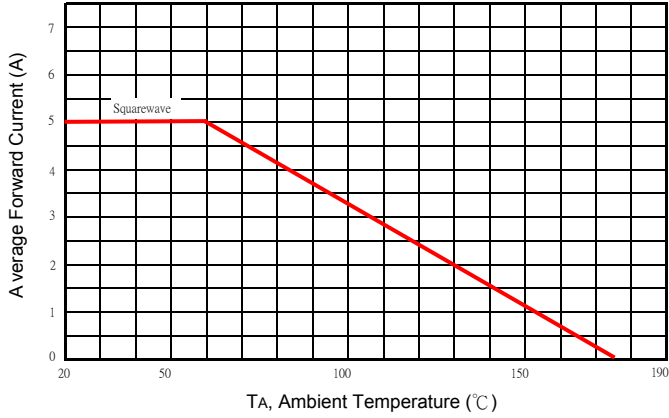
Ratings at 25°C ambient temperature unless otherwise specified.

CHARACTERISTICS	SYMBOL	SF05S60E	UNITS
Peak Repetitive Reverse Voltage	$V_{RRM}$	600	V
Working Peak Reverse Voltage	$V_{RWM}$		V
DC Blocking Voltage	$V_R$	600	V
Average Rectifier Forward Current	$I_{F(AV)}$	5	A
Non-Repetitive Peak Surge Current (Surge applied at rate load conditions half-wave, single phase, 60Hz)	$I_{FSM}$	110	A
Max. Instantaneous Forward Voltage ( $I_F = 5\text{ A}$ , $T_C = 25^\circ\text{C}$ )	$V_F$	2.5	V
Typical Forward Voltage ( $I_F = 5\text{ A}$ , $T_C = 25^\circ\text{C}$ )		1.6	
Max. Instantaneous Reverse Current (Rated DC Voltage, $T_C = 25^\circ\text{C}$ )	$I_R$	10	$\mu\text{A}$
(Rated DC Voltage, $T_C = 125^\circ\text{C}$ )		250	
Max. Reverse Recovery Time (@ $I_F = 0.5\text{ A}$ , $I_R = 1\text{ A}$ , $I_{RR} = 0.25\text{ A}$ )	$T_{RR}$	35	nS
Typical Reverse Recovery Time (@ $I_F = 0.5\text{ A}$ , $I_R = 1\text{ A}$ , $I_{RR} = 0.25\text{ A}$ )		29	
Typical Junction Capacitance (Reverse Voltage of 0V & $f = 1\text{ MHz}$ )	$C_P$	72	pF
Thermal Resistance (Note)	$R_{\theta JA}$	30	$^\circ\text{C} / \text{W}$
Operating Junction and Storage Temperature Range	$T_J, T_{STG}$	-65~+175	$^\circ\text{C}$

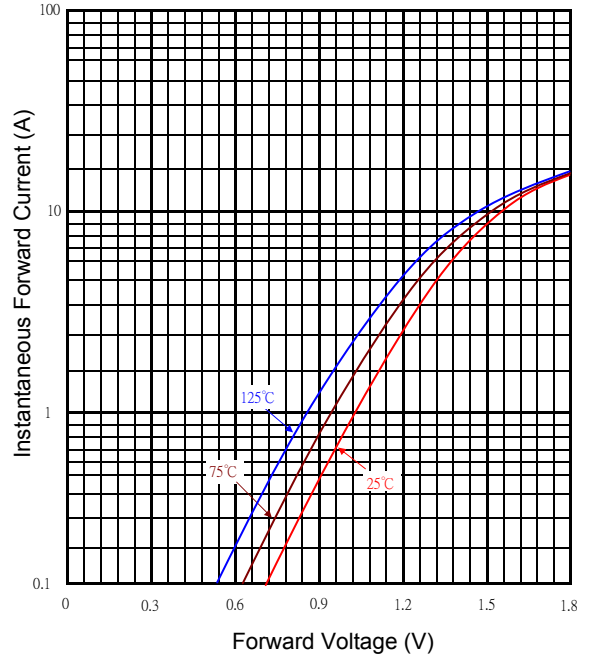
Note: Lead length = 1/2" on P.C. board with 1.5"x1.5" copper surface.

**RATINGS AND CHARACTERISTIC CURVES (SF05S60E)**

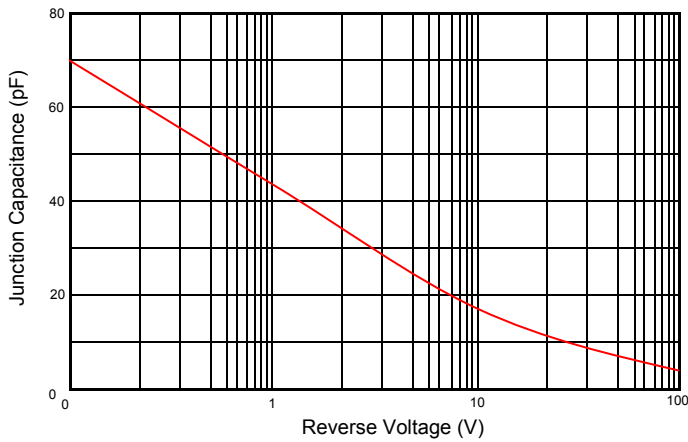
Typical Forward Current Derating Curve



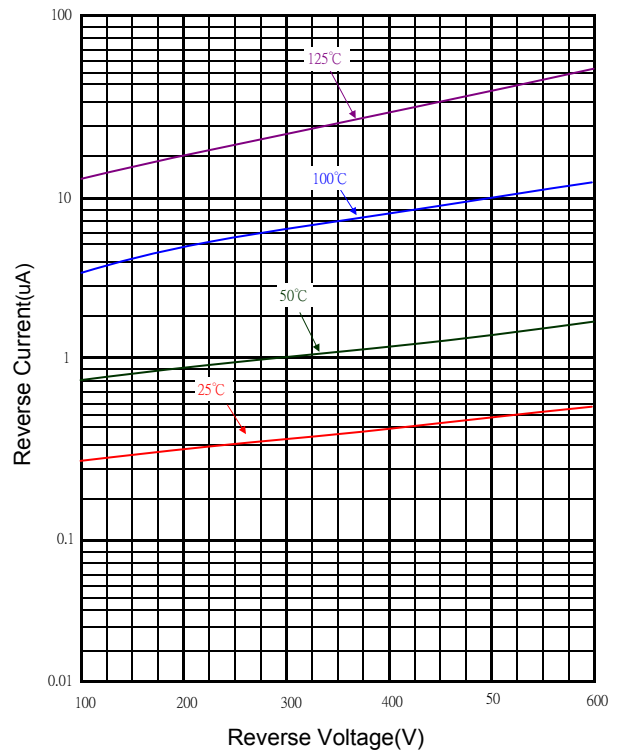
Typical Forward Characteristic



Typical Junction Capacitance



Typical Reverse Characteristic



Maximum Non- Repetitive Forward Surge Current

