Elektronische Bauelemente

SF05S60E

Voltage 600 V

5 Amp Low Loss Superfast Rectifier

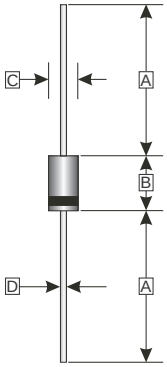
RoHS Compliant Product

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

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

MECHANICAL DATA

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

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 A, T_C=25°C) Typical Forward Voltage (I_F= 5 A, T_C=25°C)	V_F	2.5 1.6	V
Max. Instantaneous Reverse Current (Rated DC Voltage, T_C=25°C) (Rated DC Voltage, T_C=125°C)	I_R	10 250	μA
Max. Reverse Recovery Time (@I_F = 0.5A,I_R = 1A, I_{RR} = 0.25A) Typical Reverse Recovery Time (@I_F = 0.5A,I_R = 1A, I_{RR} = 0.25A)	T_{RR}	35 29	nS
Typical Junction Capacitance (Reverse Voltage of 0V & f=1MHz)	C_P	72	pF
Thermal Resistance (Note)	$R_{\theta JA}$	30	°C / W
Operating Junction and Storage Temperature Range	T_J, T_{STG}	-65~+175	°C

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

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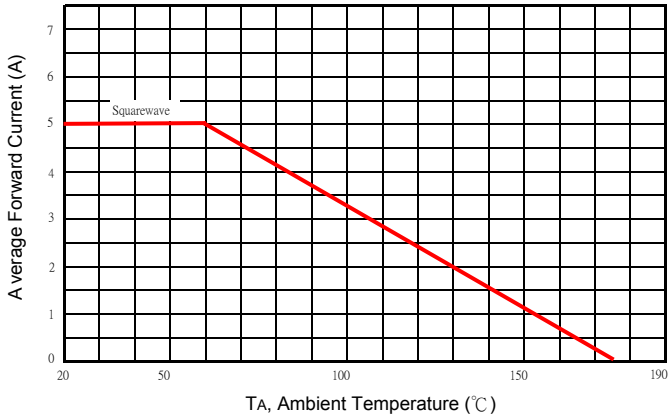
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Voltage 600 V

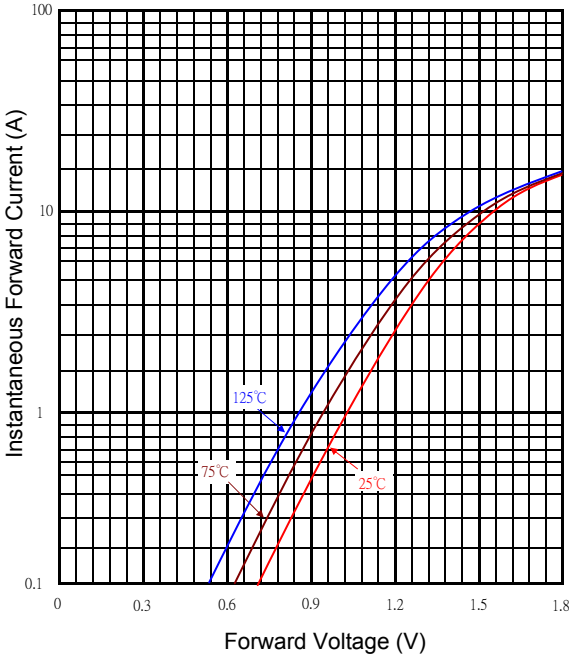
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RATINGS AND CHARACTERISTIC CURVES (SF05S60E)

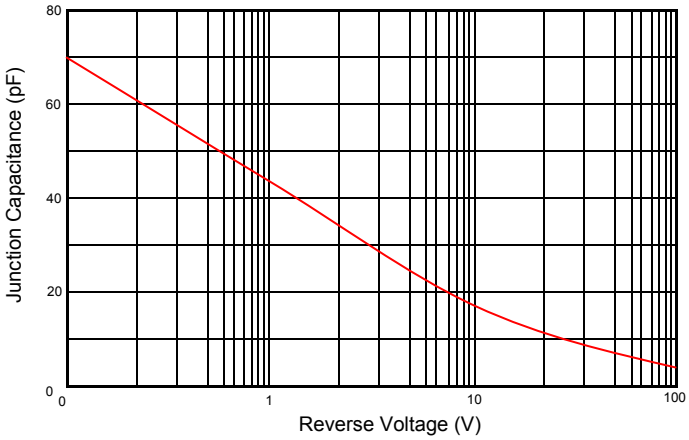
Typical Forward Current Derating Curve



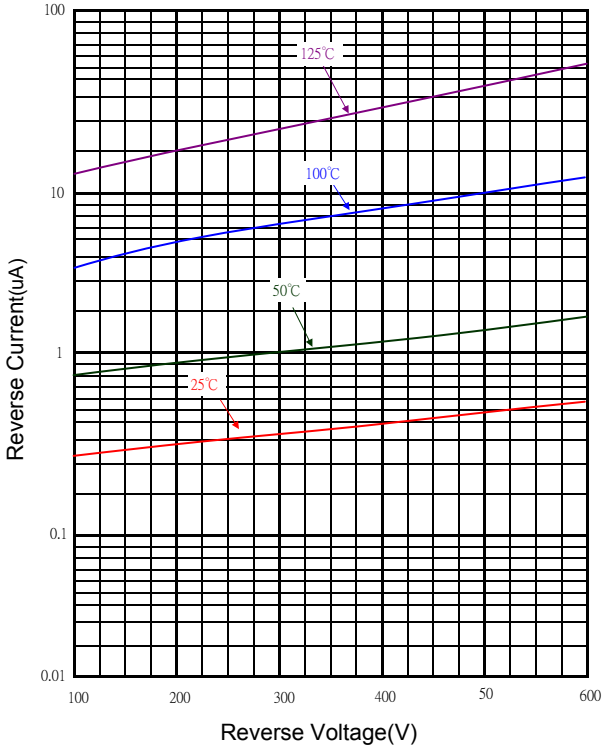
Typical Forward Characteristic



Typical Junction Capacitance



Typical Reverse Characteristic



Maximum Non- Repetitive Forward Surge Current

