Elektronische Bauelemente

SF05U60E

Voltage 600 V

5 Amp Low Loss Ultrafast Rectifier

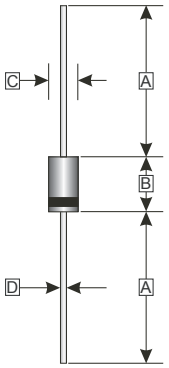
RoHS Compliant Product

A suffix of "-C" specifies halogen free

DO-27(DO-201)

FEATURES

- High Surge Capacity
- 175°C Operating Junction Temperature
- Low Power Loss, High Effciency
- High-Switching Speed 70 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



PACKAGING INFORMATION

- Case: Epoxy Molded
- Weight:1.2 grams
- Polarity: Cathode indicated by polarity band.

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

CHARACTERISTICS		SYMBOL	RATING	UNIT
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}	130	A
Max. Instantaneous Forward Voltage (I_F= 5 A, T_C=25°C) Typical Forward Voltage (I_F= 5 A, T_C=125°C)		V_F	1.4 1.1	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,V_R = 30V,dI_F / dt = 100 A /μs) Typical Reverse Recovery Time (I_F = 0.5A,V_R = 30V,dI_F / dt = 100 A /μs)		T_{RR}	70 50	nS
Typical Junction Capacitance (Reverse Voltage of 0V & f=1MHz)		C_P[2]	80	pF
Thermal Resistance (Note 1,2)	Junction to Ambient	$R_{\theta JA}$	30	°C / W
	Junction to Lead	$R_{\theta JL}$	11	°C / W
Operating Junction and Storage Temperature Range		T_J, T_{STG}	-65~+175	°C

Note: 1.Thermal resistance junction to lead, measured point from body 1mm by lead.
2.. Lead length=1/2" on P.C board with 1.5" x 1.5" copper surface

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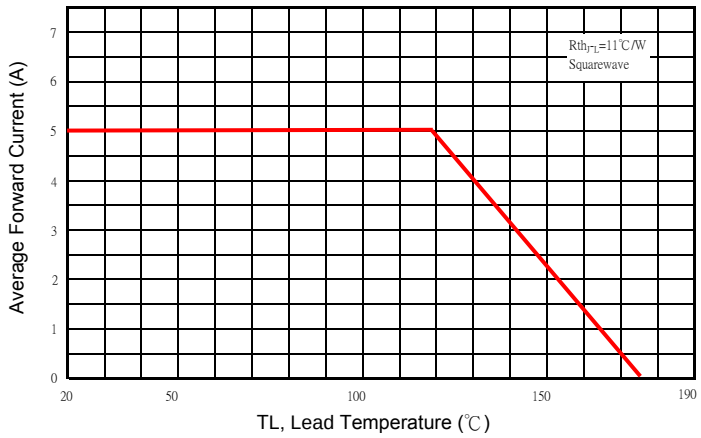
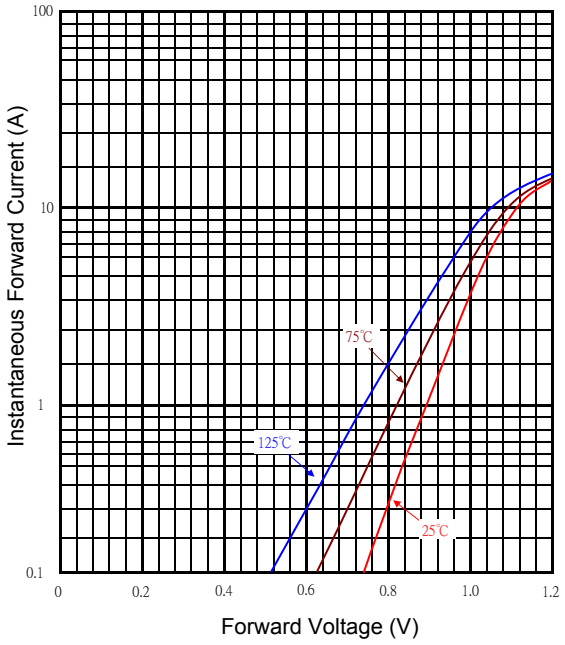
RATINGS AND CHARACTERISTIC CURVES (SF05U60E)

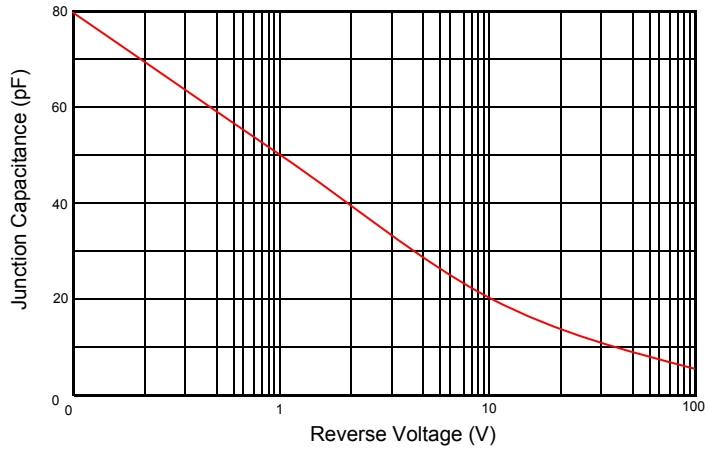
Typical Forward Current Derating Curve



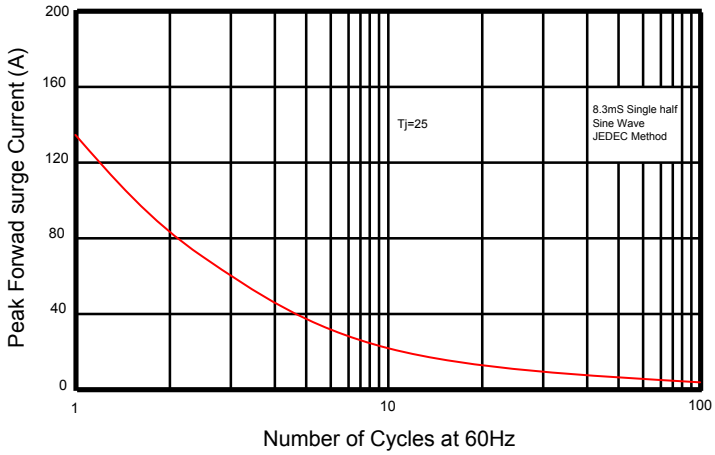
Typical Forward Characteristic



Typical Junction Capacitance



Maximum Non- Repetitive Forward Surge Current



Typical Reverse Characteristic