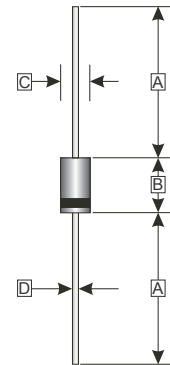


RoHS Compliant Product
 A suffix of "-C" specifies halogen free

DO-27(DO-201)

FEATURES

- High Surge Capacity
- 175°C Operating Junction Temperature
- Low Power Loss, High Efficiency
- 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

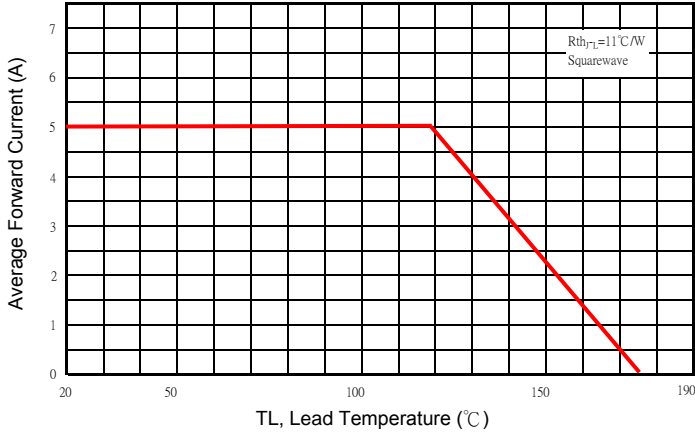
MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

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 ($I_F = 5 A, T_C = 25^\circ C$)	V_F	1.4	V	
Typical Forward Voltage ($I_F = 5 A, T_C = 125^\circ C$)		1.1		
Max. Instantaneous Reverse Current (Rated DC Voltage, $T_C = 25^\circ C$)	I_R	10	μA	
(Rated DC Voltage, $T_C = 125^\circ C$)		250		
Max. Reverse Recovery Time ($I_F = 0.5A, V_R = 30V, di_F / dt = 100 A / \mu s$)	T_{RR}	70	nS	
Typical Reverse Recovery Time ($I_F = 0.5A, V_R = 30V, di_F / dt = 100 A / \mu s$)		50		
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	$^\circ C / W$
	Junction to Lead	$R_{\theta JL}$	11	$^\circ C / W$
Operating Junction and Storage Temperature Range	T_J, T_{STG}	-65~+175	$^\circ C$	

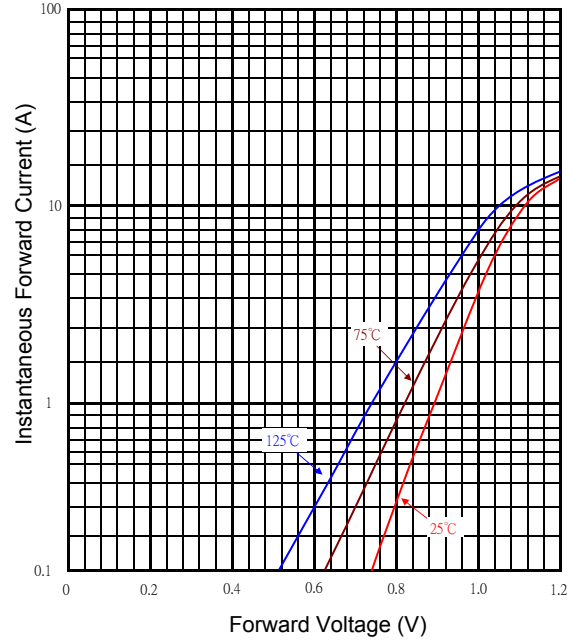
Note: 1. Thermal resistance junction to lead, measured point from body 1mm by lead.
 2.. Lead length=1/2" on P.C board with 1.5" x 1.5" copper surface

RATINGS AND CHARACTERISTIC CURVES (SF05U60E)

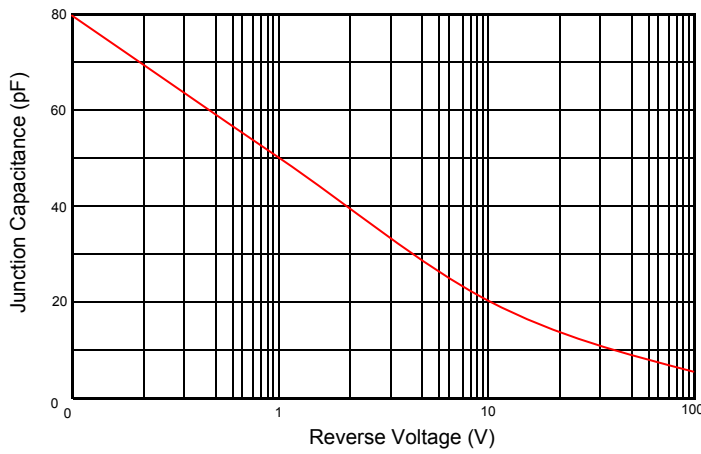
Typical Forward Current Derating Curve



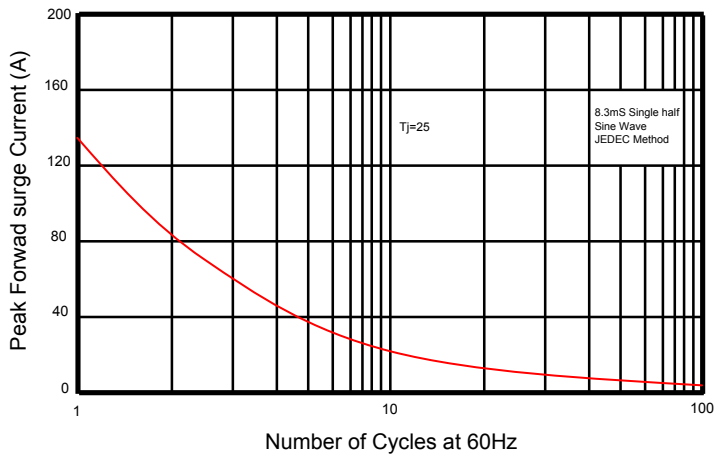
Typical Forward Characteristic



Typical Junction Capacitance



Maximum Non- Repetitive Forward Surge Current



Typical Reverse Characteristic

