

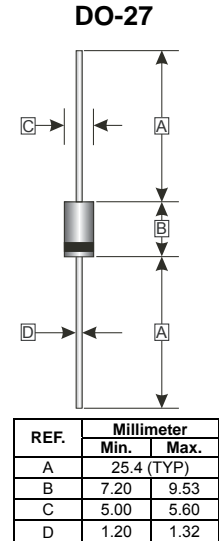
RoHS Compliant Product
A suffix of "-C" specifies halogen & lead-free

FEATURES

- Low forward voltage drop
- High current capability
- High reliability
- High surge current capability
- High speed switching

PACKAGING INFORMATION

- Case: Molded plastic
- Epoxy: UL 94V-0 rate flame retardant
- Lead: Axial leads, solderable per MIL-STD-202, method 208 guaranteed
- Polarity: Color band denotes cathode end
- Mounting position: Any
- Weight: 1.1050 grams (approximately)



MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

(Rating 25°C ambient temperature unless otherwise specified. Single phase half wave, 60Hz, resistive or inductive load.
For capacitive load, de-rate current by 20%.)

Parameter	Symbol	Part Number					Unit	
		SF51	SF52	SF53	SF54	SF55		
Maximum Recurrent Reverse Voltage	V_{RRM}	50	100	200	400	600	V	
Maximum RMS Voltage	V_{RMS}	35	70	140	280	420	V	
Maximum DC Blocking Voltage	V_{DC}	50	100	200	400	600	V	
Maximum Instantaneous Forward Voltage @ $I_F=5A$	V_F	0.95			1.3	1.7	V	
Maximum Average Forward Rectified Current, 0.375" (9.5mm) lead length @ $T_L=55^\circ C$	I_O	5					A	
Peak Forward Surge Current, 8.3ms single half sine-wave superimposed on rated load (JEDEC method)	I_{FSM}	150					A	
Maximum DC Reverse Current at Rated DC Blocking Voltage	$T_J=25^\circ C$	I_R					5	μA
	$T_J=125^\circ C$							
Maximum Reverse Recovery Time ¹	T_{RR}	35					nS	
Typical Junction Capacitance ²	C_J	100				65	pF	
Typical Thermal Resistance	$R_{\theta JA}$	20					$^\circ C / W$	
Operating and Storage Temperature Range	T_J, T_{STG}	-55 ~ 150					$^\circ C$	

Note:

1. $I_F=0.5A, I_R=1.0A, I_{RR}=0.25A$
2. Measured at 1.0 MHz and applied reverse voltage of 4.0 Volts DC.

RATINGS AND CHARACTERISTIC CURVES

FIG.1 - FORWARD CURRENT DERATING CURVE

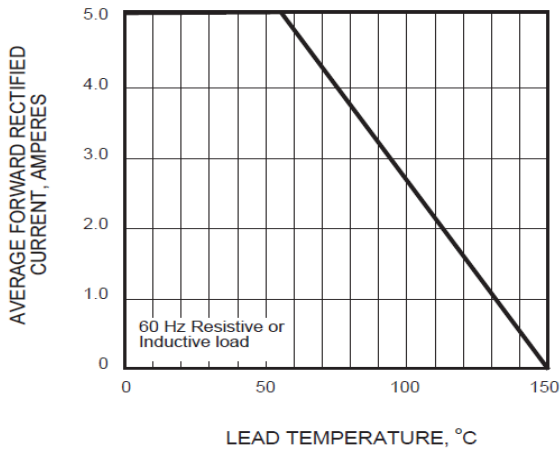


FIG.2 - MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

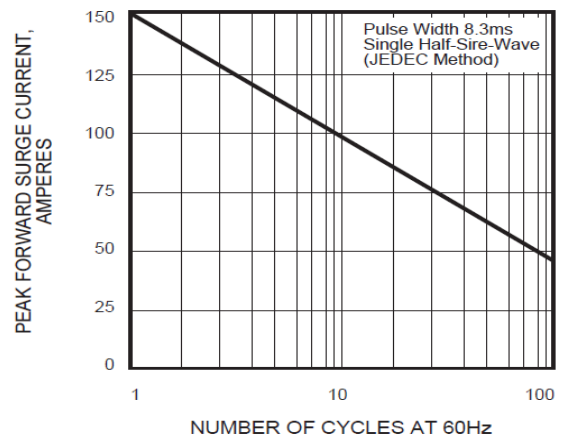


FIG.3 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

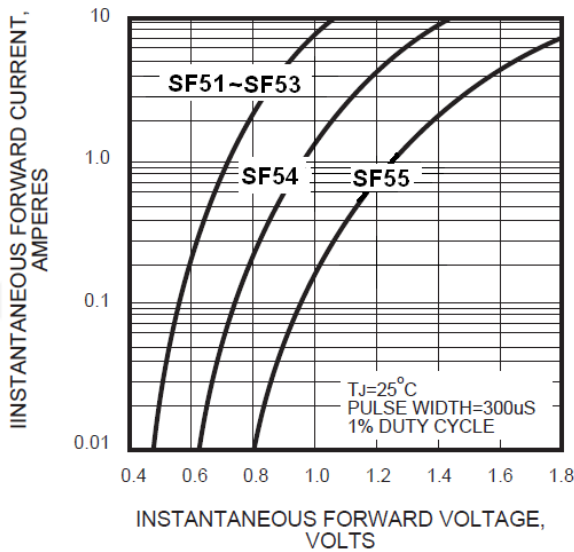


FIG.4 - TYPICAL REVERSE CHARACTERISTICS

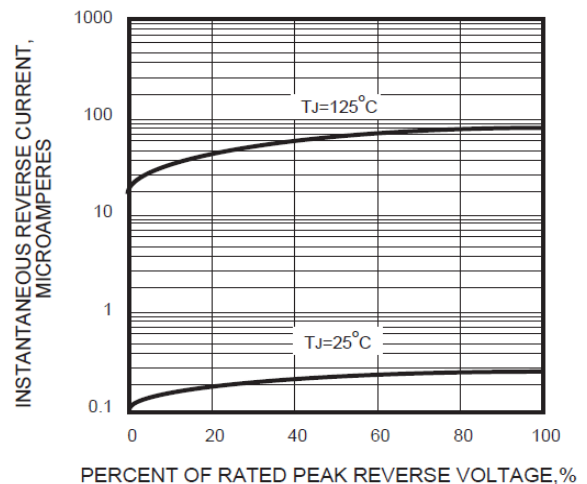


FIG.5 - TYPICAL JUNCTION CAPACITANCE

