

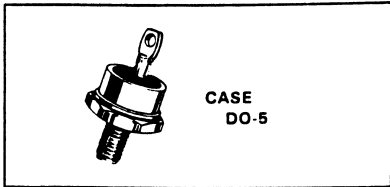
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**1N6097
 1N6098
 SD51**

**SCHOTTKY BARRIER
 RECTIFIERS**

**60 AMPERES
 20 to 45 VOLTS**



MAXIMUM RATINGS

Rating	Symbol	1N6097*	1N6098*	SD51	Unit
Peak Repetitive Reverse Voltage	V _{RRM}	30	40	45	Volts
Working Peak Reverse Voltage	V _{RWM}			35	
DC Blocking Voltage	V _R			45	
Peak Repetitive Forward Current (Rated V _R , Square Wave, 20 kHz)	I _{FRM}	—	—	120 T _C = 90°C	Amps
Average Rectified Forward Current (Rated V _R)	I _O	50 T _C = 70°C	50 T _C = 70°C	—	Amps
Case Temperature (Rated V _R)	T _C	115	115	—	°C
Nonrepetitive Peak Surge Current (Surge applied at rated load conditions halfwave, single phase, 60 Hz)	I _{FSM}	← 800 →			Amps
Peak Repetitive Reverse Surge Current (2) (2.0 μs, 1.0 kHz) See Figure 10.	I _{RRM}	← 2.0 →			Amps
Operating Junction Temperature Range (Reverse Voltage Applied)	T _J	-65 to +125	-65 to +125	-65 to +150	°C
Storage Temperature Range	T _{stg}	-65 to +125	-65 to +125	-65 to +165	°C
Voltage Rate of Change (Rated V _R)	dv/dt	—	—	700	V/μs

THERMAL CHARACTERISTICS

Characteristic	Symbol	1N6097*	1N6098*	SD51	Unit
Thermal Resistance, Junction-to-Case	R _{θJC}	← 1.0 →			°C/W

ELECTRICAL CHARACTERISTICS (T_C = 25°C unless otherwise noted)

Characteristic	Symbol	1N6097*	1N6098*	SD51	Unit
Maximum Instantaneous Forward Voltage (2) (i _F = 157 Amp, T _C = 70°C) (i _F = 60 Amp) (i _F = 60 Amp, T _C = 125°C) (i _F = 120 Amp, T _C = 125°C)	V _F	0.86 — — —	0.86 — — —	— 0.70 0.60 0.84	Volts
Maximum Instantaneous Reverse Current (2) (Rated Voltage, T _C = 125°C) (Rated Voltage, T _C = 25°C)	i _R	250 —	250 —	200 50 @ V _R = 35 V	mA
DC Reverse Current (Rated Voltage, T _C = 115°C)	I _R	250	250	—	mA
Maximum Capacitance (100 kHz ≤ f ≤ 1.0 MHz)	C _t	7000 V _R = 1.0 Vdc	7000 V _R = 1.0 Vdc	4000 V _R = 5.0 Vdc	pF



Quality Semi-Conductors