

SDR600 THRU SDR607

15 AMPS

ULTRA FAST RECOVERY RECTIFIERS

50-700 VOLTS



14830 Valley View Avenue
La Mirada, California 90638
(213) 921-9660
TWX 910-583-4807
FAX 213-921-2396

CASE STYLE G (DO-4)



FEATURES

- ULTRA FAST RECOVERY 45 NSEC MAX
- PIV TO 600 VOLTS
- LOW REVERSE LEAKAGE
- HERMETICALLY SEALED
- SINGLE CHIP CONSTRUCTION
- LOW FORWARD VOLTAGE DROP 600 MV AVERAGE
- HIGH SURGE CURRENT 250 AMPS
- AVAILABLE IN MODIFIED TO-59/111
- ISOLATED PACKAGE BY SPECIAL REQUEST

MAXIMUM RATINGS

Rating		Symbol	Value	Unit
Peak Repetitive Reverse Voltage and DC Blocking Voltage	SDR600	$V_{RM} (rep)$	50	Volts
	SDR601	V_R	100	
	SDR602		200	
	SDR603		300	
	SDR604		400	
	SDR605		500	
	SDR606		600	
	SDR607		700	
RMS Reverse Voltage	SDR600	V_r	35	Volts
	SDR601		70	
	SDR602		140	
	SDR603		210	
	SDR604		280	
	SDR605		350	
	SDR606		420	
	SDR607		490	
Half Wave Rectified Forward Current, Averaged Over Full Cycle (Resistive Load, 60Hz, Sine Wave, $T_C = 55^\circ C$)		I_O	15	Amps
Peak Repetitive Forward Current ($T_C = 55^\circ C$, 8.3 ms Pulse, Allow Junction to Reach Equilibrium Between Pulses)		$I_{FM} (rep)$	60	Amps
Peak Surge Current ($T_C = 55^\circ C$, Superimposed on Rated Current at Rated Voltage, 8.3 ms Pulse)		$I_{FM} (surge)$	250	Amps
Operating and Storage Temperature		T_J, T_{stg}	-65 to 175	$^\circ C$

THERMAL CHARACTERISTICS

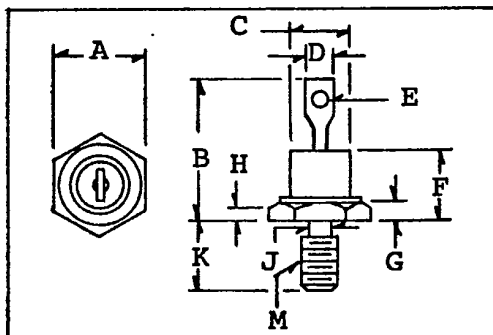
Characteristics	Symbol	Max	Unit
Thermal Resistance, Junction to Case	$R_{\theta JC}$	1.3	$^\circ C/W$

ELECTRICAL CHARACTERISTICS

Characteristics	Symbol	Value	Unit
Max Full Cycle Forward Voltage Drop, Averaged Over Full Cycle (I_O (Max), 60 Hz. Square Wave, $T_C = 55^\circ\text{C}$)	$V_F(\text{AV})$	0.6	Vdc
Max Instantaneous Forward Drop ($I_F = 15$ Adc, $T_C = 25^\circ\text{C}$, 300 μs Pulse)	V_F	SDR600-605 1.7 SDR606 1.9 SDR607 2.0	Vdc
Max Full Cycle Reverse Leakage Current, Averaged Over Full Cycle (Rated V_R , 60Hz, Square Wave, $T_C = 100^\circ\text{C}$)	$I_R(\text{AV})$	5.0	mAac
Max Reverse Leakage Current (Rated V_R , $T_C = 25^\circ\text{C}$)	I_R	0.05	mAac
Max Junction Capacitance ($V_R = 10$ V, $T_C = 25^\circ\text{C}$)	C_J	150	pf

REVERSE RECOVERY CHARACTERISTICS

Characteristics	Symbol	Min	Typ	Max	Unit
Reverse Recovery Time ($I_F = 500\text{ma}$, $I_R = 1\text{A}$, $I_{RR} = 250\text{ma}$)	t_{rr}		SDR600-605 40 SDR606 45 SDR607 50	45 50 55	ns

PHYSICAL DIMENSIONS**KEY TO DIMENSIONS:**

(Inches)

A =	.424-.437
B =	.800 MAX.
C =	.424 MAX.
D =	.250 MAX.
E =	.060 MIN.
F =	.405 MAX.
G =	.075-.175
H =	.060 MIN.
J =	.163-.189
K =	.422-.453
M =	10-32 UNF-2A

SSDII SOLID STATE DEVICES, INC.