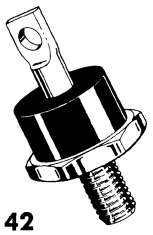
1N248B,C thru 1N250B,C

1N1191 thru 1N1198
1N1195A thru 1N1198A
1N3213,1N3214



CASE 42
(DO-5)

Medium current silicon rectifiers. Unique double-case construction consists of hermetically sealed inner metallic case surrounded by molded external case; provides highest degree of ruggedness and reliability. Type numbers shown have cathode connected to case, but reverse-polarity units can be obtained by adding suffix "R" to standard type number, e.g. 1N248BR.

MAXIMUM RATINGS

Rating	Symbol	Value	Unit
Peak Repetitive Reverse Voltage and DC Blocking Voltage	$V_{RM\ (rep)}$ V_R		Volts
1N248B, 1N1191		50	
1N248C		55	
1N249B, 1N1192		100	
1N249C		110	
1N1193		150	
1N250B, 1N1194		200	
1N250C		220	
1N1195, 1N1195A		300	
1N1196, 1N1196A		400	
1N1197, 1N1197A, 1N3213		500	
1N1198, 1N1198A, 1N3214		600	
RMS Reverse Voltage	V_r		Volts
1N248B, 1N1191		35	
1N248C		38.5	
1N249B, 1N1192		70	
1N249C		77	
1N1193		105	
1N250B, 1N1194		140	
1N250C		154	
1N1195, 1N1195A		210	
1N1196, 1N1196A		280	
1N1197, 1N1197A, 1N3213		350	
1N1198, 1N1198A, 1N3214		420	
Average 1/2-Wave Rectified Forward Current (Resistive Load, 60 Hz, $T_C = 150^oC$)	I_O	20	Amp
Peak Repetitive Forward Current ($T_C = 150^oC$)	$I_{FM\ (rep)}$	90	Amp
Peak Surge Current ($T_C = 150^oC$, superimposed on Rated Current at Rated Voltage, 1/2-Cycle, 1/120 sec)	$I_{FM\ (surge)}$	350	Amp

1N248B,C thru 1N250B,C (continued)

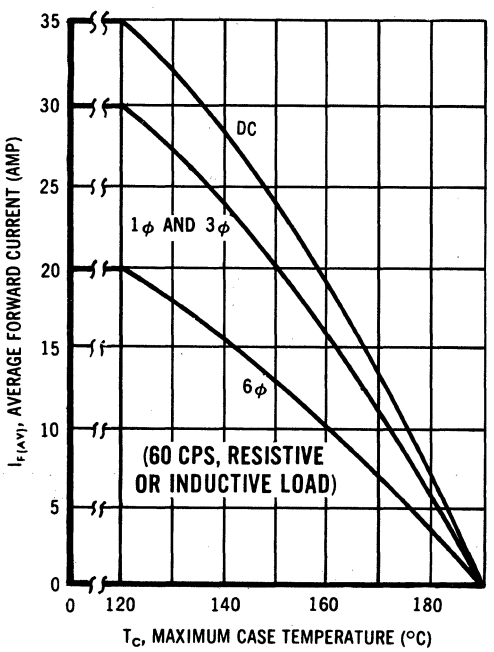
THERMAL CHARACTERISTICS

Maximum Operating and Storage Temperature: −65 to + 190°C
Maximum Thermal Impedance, Junction to Case: θ_{JC} = 1.50°C/W DC

ELECTRICAL CHARACTERISTICS

Characteristics	Symbol	Max	Unit
Full Cycle Average Forward Voltage Drop ($I_{O\ (max)}$, rated V_r, 60 cps, T_C = 150°C)	$V_{F(AV)}$	0.6	Volts
Instantaneous Forward Voltage Drop (I_F = 100 Amps, T_J = 25°C)	V_F	1.5	Volts
Full Cycle Average Reverse Current ($I_{O\ (max)}$, rated V_r, 60 cps, T_C = 150°C)	$I_{R(AV)}$		mA
1N248B thru 1N250B, 1N1191 thru 1N1198		5.0	
1N248C		3.8	
1N249C		3.6	
1N250C		3.4	
1N1195A		3.2	
1N1196A		2.5	
1N1197A		2.2	
1N1198A		1.5	
1N3213 and 1N3214		10.0	
DC Reverse Current (Rated V_R, T_C = 25°C)	I_R	1.0	mA

MAXIMUM AVERAGE FORWARD CURRENT RATING versus MAXIMUM CASE TEMPERATURE



TYPICAL FORWARD CHARACTERISTICS