DACO SEMICONDUCTOR CO., LTD.

S320BML(R) THRU S320YML(R)

STANDARD RECOVERY DIODE STUD TYPES

Features

High Surge Capability
Types up to 1600V V_{RRM}

320 Amp Rectfifier
100-1600 Volts

DO-9 (DO-205AB)

Maximum Ratings

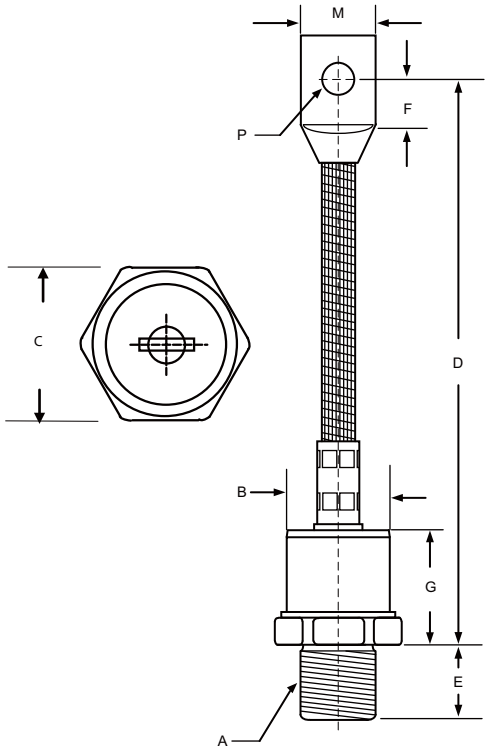
Operating Temperature: -55 ℃ to +180℃
Storage Temperature: -55 ℃ to +180 ℃

Part Number	Maximum Recurrent Peak Reverse Voltage	Maximum RMS Voltage	Maximum DC Blocking Voltage
S320BML(R)	100V	70V	100V
S320DML(R)	200V	140V	200V
S320EML(R)	300V	212V	300V
S320GML(R)	400V	280V	400V
S320JML(R)	600V	420V	600V
S320KML(R)	800V	565V	800V
S320MML(R)	1000V	707V	1000V
S320QML(R)	1200V	848V	1200V
S320YML(R)	1600V	1131V	1600V

Electrical Characteristics @ 25 ℃ Unless Otherwise Specified

Average Forward Current	$I_{F(AV)}$	320 A	T_C=130℃
Maximum Peak Forward Surge Current	I_{FSM}	6850A	8.3ms , half sine
I Squared t	i^2t	180000A^2s 125000A^2s	T_{vj}=25 ℃; 8.3...10ms T_{vj}=180℃ ; 8.3...10ms
Maximum Instantaneous Forward Voltage *	V_F	1.1V	I_{FM} = 320A. T_J = 25 ℃
Maximum Instantaneous Reverse Current At Rated DC Blocking Voltage	I_R	25 μA 20 mA	T_J=25 ℃ T_J=180 ℃
Maximum Thermal Resistance Junction To Case	$R_{\theta jc}$	0.20 ℃/W	
Maximum Transient Thermal Impedance	$R_{\theta cs}$	0.03 ℃/W	
Mounting torque (+0 -10%)	Inch pounds (in-lb)	270	
Weight		215g	

*Pulse Test: Pulse Width 300 μ sec. Duty Cycle < 2%



Marking Notes :
1.Suffix with "R" = Stud Reverse Polarity：Anode to stud
2.None = Stud normal polarity：Cathode to stud

DIM	Inches		Millimeters	
	Min	Max	Min	Max
A	M 20 * P 1.5			
B	-----	1.100	-----	27.94
C	1.240	1.250	31.50	31.90
D	7.362	7.598	187	193
E	0.780	0.828	19.60	21.03
F	0.470	0.530	11.94	13.46
G	-----	1.122	-----	28.50
M	-----	0.787	-----	20.00
P	0.330	0.350	8.38	8.89

Figure.1- Power dissipation vs. forward current

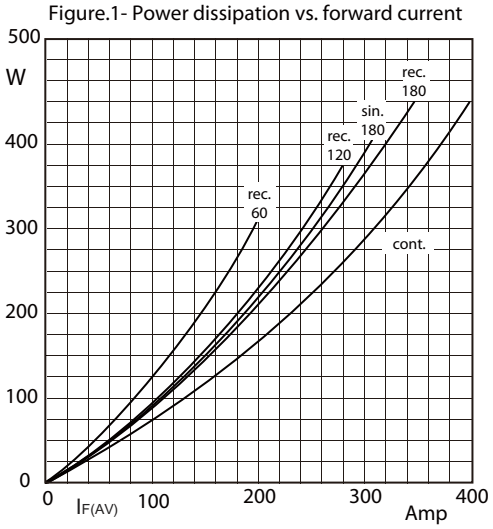


Figure.2 - Transient thermal impedance vs. time

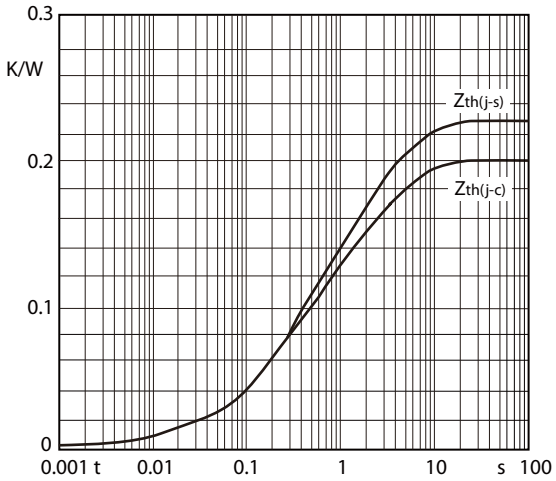


Figure.3 - Typical Forward Characteristics

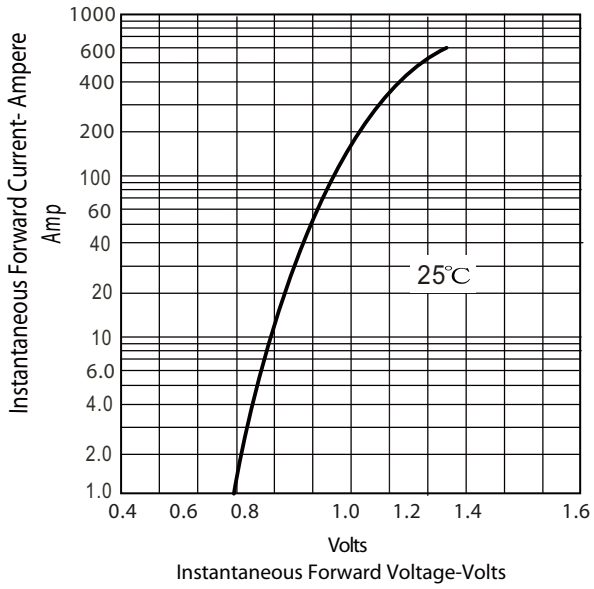


Figure.4 - Typical Reverse Characteristics

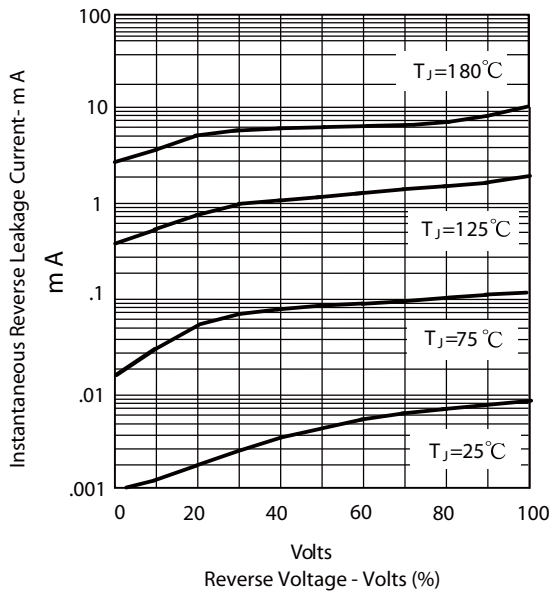


Figure.5 - Forward Derating Curve

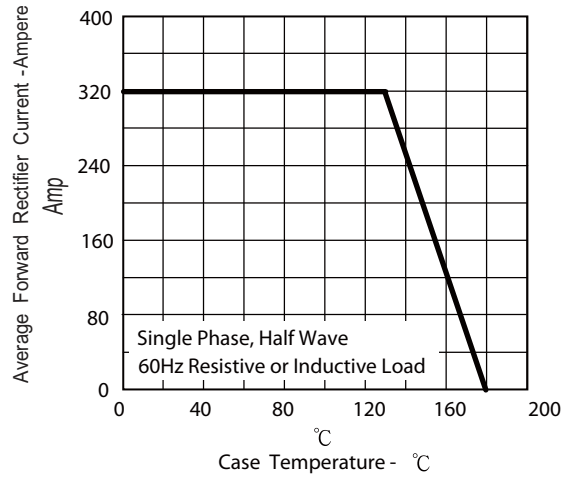
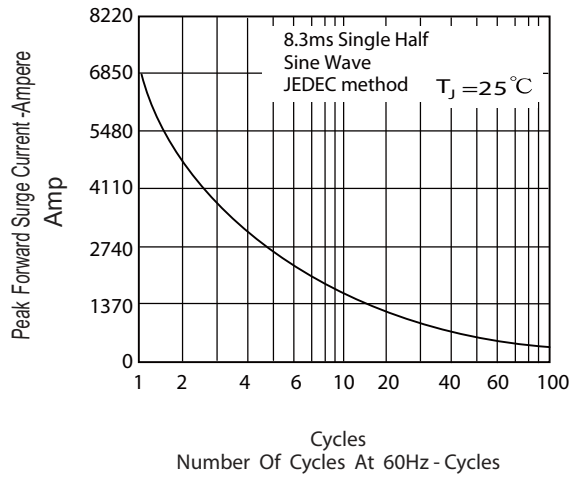


Figure.6 - Peak Forward Surge Current



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