New Jersey Semi-Conductor Products, Inc.

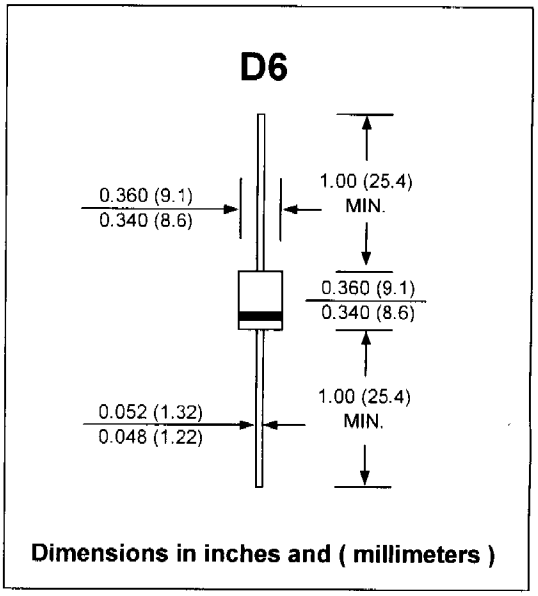
20 STERN AVE.
SPRINGFIELD, NEW JERSEY 07081
U.S.A.

TELEPHONE: (973) 376-2922
(212) 227-6005
FAX: (973) 376-8960

MR2535L

AUTOMOTIVE TRANSIENT VOLTAGE SUPPRESSOR

V_{BR} : 20 Volts
Io : 6 Amperes



Dimensions in inches and (millimeters)

FEATURES :

* Avalanche Voltage 24 to 32 Volts
* High Power capability
* Increased Capacity by Parallel Operation
* Pb / RoHS Free

MECHANICAL DATA :

* Case : molded plastic
* Epoxy : UL94V-O rate flame retardant
* Lead : Axial lead solderable per MIL-STD-202, Method 208 guaranteed
* Polarity : Color band denotes cathode end
* Mounting position : Any
* Weight : 2.049 grams

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Rating at 25 °C ambient temperature unless otherwise specified.

RATING	SYMBOL	VALUE	UNIT
Maximum DC Peak Repetitive Reverse Voltage	V_{RRM}	20	V
Maximum Working Peak Reverse Voltage	V_{RWM}	20	V
Maximum DC Blocking Voltage	V_R	20	V
Maximum Breakdown Voltage (I_R = 100 mA, Tc = 25 °C) (1)	$V_{BR(max)}$	32	V
Minimum Breakdown Voltage (I_R = 100 mA, Tc = 25 °C) (1)	$V_{BR(min)}$	24	V
Maximum Breakdown Voltage (I_R = 90 mA, Tc = 150 °C, PW = 80 µs) (1)	V_{BR}	40	V
Maximum Average Rectified Forward Current (Single Phase, Resistive Load, 60 Hz, Tc = 125 °C)	$I_{F(AV)}$	6.0	A
Maximum Repetitive Peak Reverse Surge Current (Time Constant = 10 ms, Duty Cycle ≤ 1%, Tc = 25 °C)	I_{RSM}	62	A
Maximum Non-Repetitive Peak Surge Current Surge Supplied at Rated Load Conditions, Halfwave, Single Phase	I_{FSM}	600	A
Maximum Instantaneous Forward Voltage (I_F = 100 A Tc = 25 °C) (1)	V_F	1.1	V
Maximum Reverse Current (V_R = 20 V, Tc = 25 °C)	I_R	200	nA
Typical Breakdown Voltage Temperature Coefficient	$V_{(BR)TC}$	0.096	%/°C
Typical Forward Voltage Temperature Coefficient @ I_F = 10 mA	V_{FTC}	2.0	mV/°C
Typical Thermal Resistance Junction to Case	$R_{\Theta JC}$	0.8	°C/W
Operating Junction and Storage Temperature Range	T_J, T_{STG}	- 65 to + 175	°C

Note : (1) Pulse Test : Pulse Width ≤ 300µs, Duty Cycle ≤ 2%.

RATING AND CHARACTERISTIC CURVES (MR2535L)

FIG.1 - TYPICAL FORWARD VOLTAGE

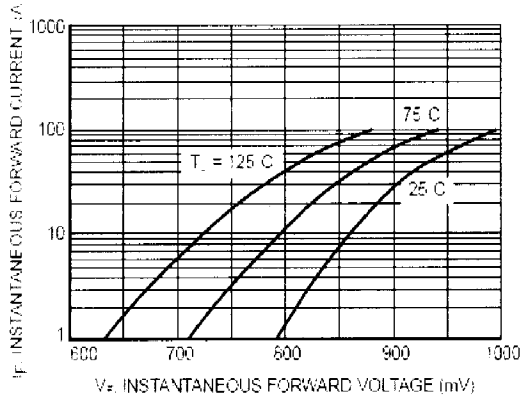


FIG.2 - TYPICAL REVERSE CURRENT VS. JUNCTION TEMPERATURE

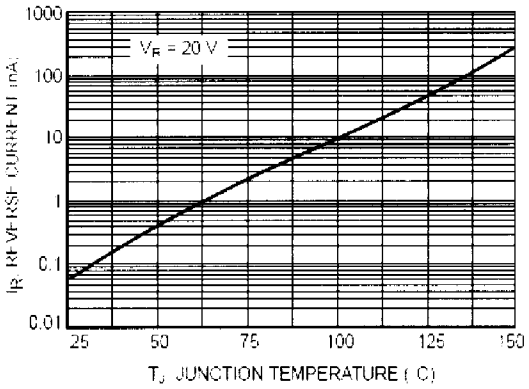


FIG.3 - TYPICAL CAPACITANCE

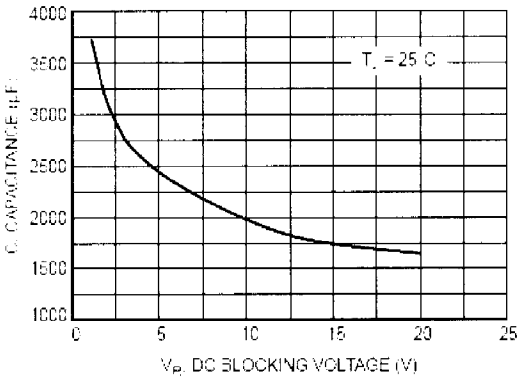


FIG.4 - MAXIMUM CURRENT RATINGS

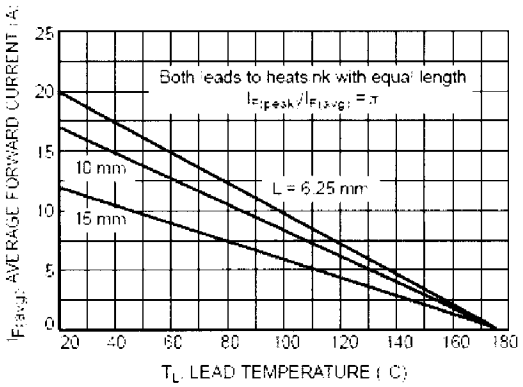


FIG.5 - THERMAL RESPONSE

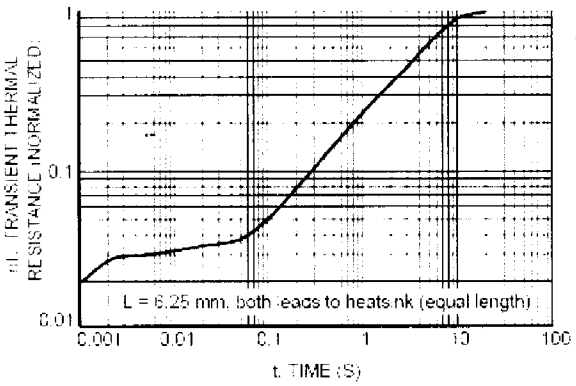


FIG.6 - STEADY STATE THERMAL RESISTANCE