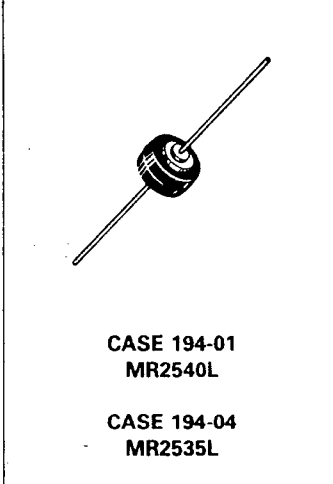


Sample
 14.057 12.8

MR2535L
MR2540L

MEDIUM CURRENT
OVERVOLTAGE
TRANSIENT
SUPPRESSORS



Advance Information
Overvoltage
Transient Suppressors

... designed for applications requiring a low voltage rectifier with reverse avalanche characteristics for use as reverse power transient suppressors. Developed to suppress transients in the automotive system, these devices operate in the forward mode as standard rectifiers or reverse mode as power avalanche rectifier and will protect electronic equipment from overvoltage conditions.

- Avalanche Voltage 24 to 32 Volts
- High Power Capability
- Economical
- Increased Capacity by Parallel Operation

MECHANICAL CHARACTERISTICS:

CASE: Transfer Molded Plastic

MAXIMUM LEAD TEMPERATURE FOR SOLDERING PURPOSES: 350°C 3/8" from case for 10 seconds at 5 lbs. tension

FINISH: All external surfaces are corrosion-resistant, leads are readily solderable

POLARITY: Indicated by diode symbol or cathode band

WEIGHT: 2.5 Grams (approx.)

MAXIMUM RATINGS

Rating	Symbol	Value	Unit
DC Peak Repetitive Reverse Voltage Working Peak Reverse Voltage DC Blocking Voltage	V_{RRM} V_{RWM} V_R	20	Volts
Repetitive Peak Reverse Surge Current MR2535L MR2540L (Time Constant = 10 ms, Duty Cycle \leq 1%, $T_C = 25^\circ\text{C}$) (See Figure 1)	I_{RSM}	110 150	Amps
Average Rectified Forward Current (Single Phase, Resistive Load, 60 Hz, $T_C = 150^\circ\text{C}$) MR2535L MR2540L	I_O	35 50	Amps
Non-Repetitive Peak Surge Current Surge Supplied at Rated Load Conditions Halfwave, Single Phase MR2535L MR2540L	I_{FSM}	600 800	Amps
Operating and Storage Junction Temperature Range	T_J, T_{stg}	-65 to +175	$^\circ\text{C}$

THERMAL CHARACTERISTICS

Characteristic	Lead Length	Symbol	Max	Unit
Thermal Resistance, Junction to Lead @ Both Leads to Heat Sink, Equal Length	1/4"	$R_{\theta JL}$	7.5	$^\circ\text{C/W}$
	3/8"		10	
	1/2"		13	
Thermal Resistance Junction to Case		$R_{\theta JC}$	0.8*	$^\circ\text{C/W}$

*Typical

This document contains information on a new product. Specifications and information herein are subject to change without notice.



ELECTRICAL CHARACTERISTICS

Characteristic	Symbol	Min	Max	Unit
Instantaneous Forward Voltage (1) ($i_F = 100$ Amps, $T_C = 25^\circ\text{C}$)	V_F	—	1.05	Volts
Reverse Current ($V_R = 20$ Vdc, $T_C = 25^\circ\text{C}$)	I_R	—	200	nAdc
Breakdown Voltage (1) ($I_R = 100$ mAdc, $T_C = 25^\circ\text{C}$)	$V_{(BR)}$	24	32	Volts
Breakdown Voltage (1) MR2535L only ($I_R = 90$ Amp, $T_C = 150^\circ\text{C}$, $PW = 80 \mu\text{s}$)	$V_{(BR)}$	—	40	Volts
Breakdown Voltage Temperature Coefficient	$V_{(BR)TC}$	—	0.096*	%/ $^\circ\text{C}$
Forward Voltage Temperature Coefficient @ $I_F = 10$ mA	V_{FTC}	—	-2*	mV/ $^\circ\text{C}$

(1) Pulse Test: Pulse Width $\leq 300 \mu\text{s}$, Duty Cycle $\leq 2\%$.

* Typical.

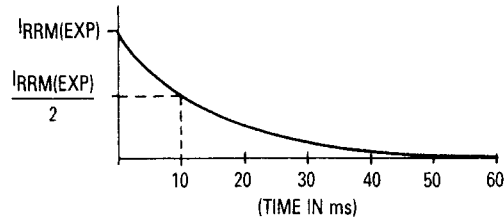
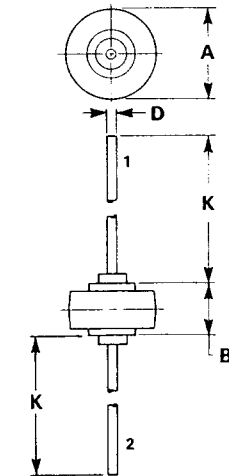


Figure 1. Surge Current Characteristics

OUTLINE DIMENSIONS

DIM	MILLIMETERS		INCHES	
	MIN	MAX	MIN	MAX
A	10.03	10.29	0.395	0.405
B	5.94	6.25	0.234	0.246
D	1.27	1.35	0.050	0.053
K	25.15	25.65	0.990	1.010

CASE 194-01
MR2540L



STYLE 1:
PIN 1. CATHODE
2. ANODE

NOTE:
1. CATHODE SYMBOL ON PKG

DIM	MILLIMETERS		INCHES	
	MIN	MAX	MIN	MAX
A	8.43	8.69	0.332	0.342
B	5.94	6.25	0.234	0.246
D	1.27	1.35	0.050	0.053
K	25.15	25.65	0.990	1.010

CASE 194-04
MR2535L

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