



JR135V SERIES

High-Voltage Current Limiting Diodes

T-11-27

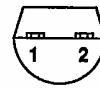
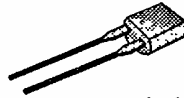
The JR135V Series of high-voltage diodes utilizes a MOS process to provide active current limiting over a voltage range from 1 V up to 240 V. These devices feature two-terminal construction and require no additional circuitry or power supplies. Additionally, it is housed in a low-cost TO-92 package and is available with tape and reel to support automated assembly.

For additional design information please see performance curves VRMA, which are located in Section 7.

PART NO.	P _{OV} (V)
JR135V	135
JR170V	170
JR200V	200
JR220V	220
JR240V	240

TO-92

BOTTOM VIEW



1 ANODE
2 CATHODE

ABSOLUTE MAXIMUM RATINGS (T_A = 25°C unless otherwise noted)

PARAMETERS/TEST CONDITIONS		SYMBOL	LIMIT	UNITS
Peak Anode-Cathode Voltage	JR135V	P _{OV}	135	V
	JR170V		170	
	JR200V		200	
	JR220V		220	
	JR240V		240	
Reverse Current		I _R	50	mA
Power Dissipation		P _D	360	mW
Power Derating			3.27	mW/°C
Operating Junction Temperature		T _J	-55 to 135	°C
Storage Temperature		T _{stg}	-55 to 150	
Lead Temperature (1/16" from case for 10 seconds)		T _L	300	

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ELECTRICAL CHARACTERISTICS ¹						
PARAMETER	SYMBOL	TEST CONDITIONS	TYP ²	LIMITS		UNIT
				MIN	MAX	
STATIC						
Peak Operating Voltage	P _{OV}	I _F = 1 mA	JR135V	165	135	V
			JR170V	190	170	
			JR200V	215	200	
			JR220V	230	220	
			JR240V	260	240	
Forward Current	I _F	V _F = 2 V	440	200	μA	
		V _F = 100 V	450	200		770
Limiting Voltage	V _L	I _F = 0.8 I _F @ 2 V min	0.7		0.9	V
DYNAMIC						
Dynamic Impedance	Z _D	V _F = 25 V	2			MΩ
Temperature Coefficient	$\frac{\Delta I_F}{\Delta T}$	V _F = 2 to 100 V T _A = -20 to 85°C	0.6			%/°C

- NOTES: 1. T_A = 25 °C unless otherwise noted.
 2. For design aid only, not subject to production testing.