

JR135V SERIES

High-Voltage Current Limiting Diodes

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.	Р _{ОV} (V)
JR135V	135
JR170V	170
JR200V	200
JR220V	220
JR240V	240

TO-92

BOTTOM VIEW



1	2)

ż CATHODE

ABSOLUTE MAXIMUM RATINGS ($T_A = 25 \degree C$ unless otherwise noted)

PARAMETERS/TEST CONDITIONS		SYMBOL	LIMIT	UNITS	
Peak Anode-Cathode Voltage	JR135V		135		
	JR170V		170	v	
	JR200V	Pov	200		
	JR220V		220		
	JR240V		240		
Reverse Current		۱ _R	50	mA	
Power Dissipation		PD	360	mW	
Power Derating			3.27	mW/°C	
Operating Junction Temperature		Tj	–55 to 135		
Storage Temperature		T _{stg}	–55 to 150	°C	
Lead Temperature (1/16" from case for 10 seconds)		ΤL	300		

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ELECTRICAL CHARACTERISTICS 1									
					LIN	1ITS			
PARAMETER	SYMBOL	TEST CONDITIONS		TYP ²	MIN	МАХ	UNIT		
STATIC									
Peak Operating Voltage		I _F = 1 mA	JR135V	165	135		v		
			JR170V	190	170				
	Pov		JR200V	215	200				
			JR220V	230	220				
			JR240V	260	240				
E-mark Ormant	1	V _F = 2 V		440	200				
Forward Current	١F	V _F = 1	00 V	450	200	770	μА		
Limiting Voltage	VL	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	∆I _F ∆T	V _F = 2 to 100 V T _A = -20 to 85°C		0.6			%/°C		

NOTES: 1. $T_A = 25 \,^{\circ}$ C unless otherwise noted. 2. For design aid only, not subject to production testing.