

FAST RECOVERY RECTIFIER

FR151- FR157

DO-15
Axial Lead Plastic Package



Fast Switching for High Efficiency

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at $T_a=25^\circ\text{C}$ Ambient Temperature unless otherwise specified. Single phase, half wave, 60Hz resistive or inductive load. For capacitive load, derate current by 20%

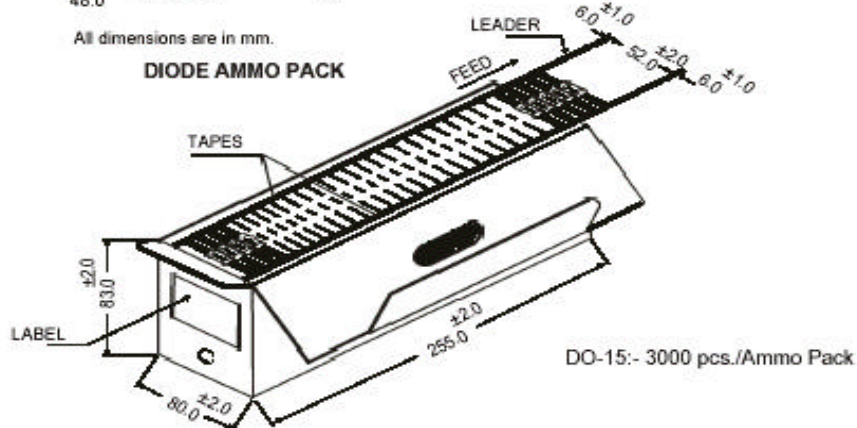
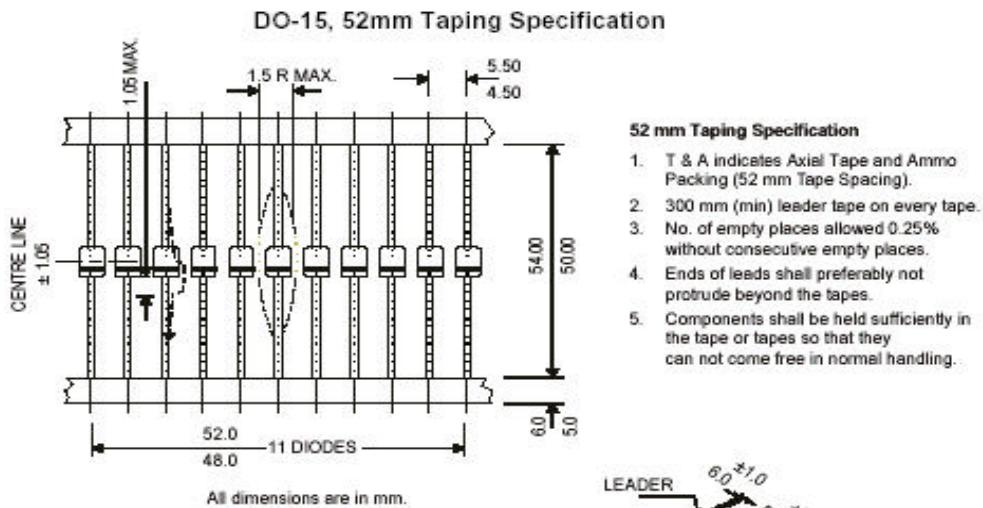
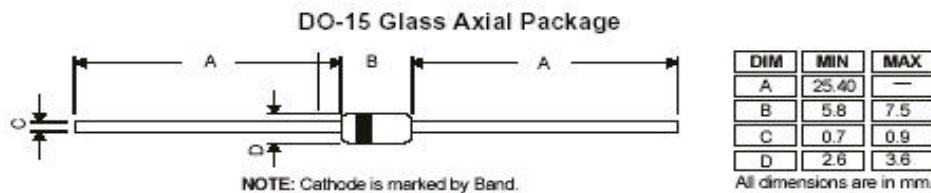
DESCRIPTION	SYMBOL	FR151	FR152	FR153	FR154	FR155	FR156	FR157	UNIT
Maximum Recurrent Peak Reverse Voltage	V_{RRM}	50	100	200	400	600	800	1000	V
Maximum RMS Voltage	V_{RMS}	35	70	140	280	420	560	700	V
Maximum DC Blocking Voltage	V_{DC}	50	100	200	400	600	800	1000	V
Maximum Average Forward Rectified Current 0.375" (9.5mm) Lead Length at $T_a=55^\circ\text{C}$	$I_{F(AV)}$	1.5							A
Peak Forward Surge Current, 8.3ms single half sine wave superimposed on rated load (JEDEC method)	I_{FSM}	50							A
Maximum Forward Voltage at 1.5A at 25°C	V_F	1.3							V
Maximum Reverse Current at $T_a=25^\circ\text{C}$ at Rated DC Blocking Voltage $T_a=100^\circ\text{C}$	I_R	5.0 500							μA μA
Typical Junction Capacitance	$*C_J$	25							pF
Typical Thermal Resistance	$**R_{th(j-a)}$	45							$^\circ\text{C/W}$
Maximum Reverse Recovery Time	$***T_{RR}$	150			250	500			ns
Operating and Storage Temperature Range	T_J, T_{stg}	- 55 to +150							$^\circ\text{C}$

*Measured at 1MHz and applied reverse voltage of 4.0 V

**Thermal resistance junction to Ambient and from junction to lead length 0.375" (9.5mm) PCB mounted

***Reverse recovery test conditions $I_F=0.5\text{A}$, $I_R=1\text{A}$, $I_{RR}=0.25\text{A}$

FR151_157Rev200106E



Component Disposal Instructions

1. CDIL Semiconductor Devices are RoHS compliant, customers are requested to please dispose as per prevailing Environmental Legislation of their Country.
2. In Europe, please dispose as per EU Directive 2002/96/EC on Waste Electrical and Electronic Equipment (WEEE).

Disclaimer

The product information and the selection guides facilitate selection of the CDIL's Semiconductor Device(s) best suited for application in your product(s) as per your requirement. It is recommended that you completely review our Data Sheet(s) so as to confirm that the Device(s) meet functionality parameters for your application. The information furnished in the Data Sheet and on the CDIL Web Site/CD are believed to be accurate and reliable. CDIL however, does not assume responsibility for inaccuracies or incomplete information. Furthermore, CDIL does not assume liability whatsoever, arising out of the application or use of any CDIL product; neither does it convey any license under its patent rights nor rights of others. These products are not designed for use in life saving/support appliances or systems. CDIL customers selling these products (either as individual Semiconductor Devices or incorporated in their end products), in any life saving/support appliances or systems or applications do so at their own risk and CDIL will not be responsible for any damages resulting from such sale(s).

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