

GENERAL PURPOSE PLASTIC SILICON RECTIFIER

EM513 - EM518

**DO-41P
Axial Plastic Package**



ABSOLUTE MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS:

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

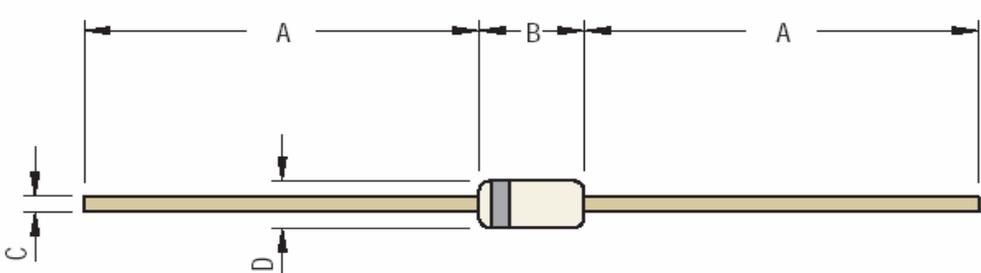
Description	Symbols	EM513	EM516	EM518	Units
Maximum Peak repetitive reverse voltage	V_{RRM}	1600	1800	2000	Volts
Maximum RMS Voltage	V_{RMS}	1120	1260	1400	Volts
Maximum DC Blocking Voltage	V_{DC}	1600	1800	2000	Volts
Maximum Average Forward Rectified Current 0.375" (9.5mm) Lead Length at $T_L=75^\circ\text{C}$	$I_{(AV)}$	1.0			Amp
Peak Forward Surge Current, 8.3ms single half-sine-wave superimposed on rated load (JEDEC method)	I_{FSM}	30			Amp
Maximum Forward Voltage at 1.0A and 25°C	V_F	1.1			Volts
Maximum Reverse Current at Rated DC Blocking Voltage $T_A=25^\circ\text{C}$ $T_A=100^\circ\text{C}$	I_R	5.0 500			μAmp
Typical Junction Capacitance (Note 1)	C_j	15			pF
Typical Thermal Resistance (Note 2)	$R_{\theta JA}$	50			$^\circ\text{C/W}$
Operating Junction Temperature Range	T_j	-55 to +150			$^\circ\text{C}$
Storage Temperature Range	T_{stg}	-55 to +150			$^\circ\text{C}$

NOTES:

1. Measured at 1 MHz and applied reverse voltage of 4.0 V_{DC} .
2. Thermal resistance from Junction to Ambient 0.375" (9.5mm) lead length PCB Mounted

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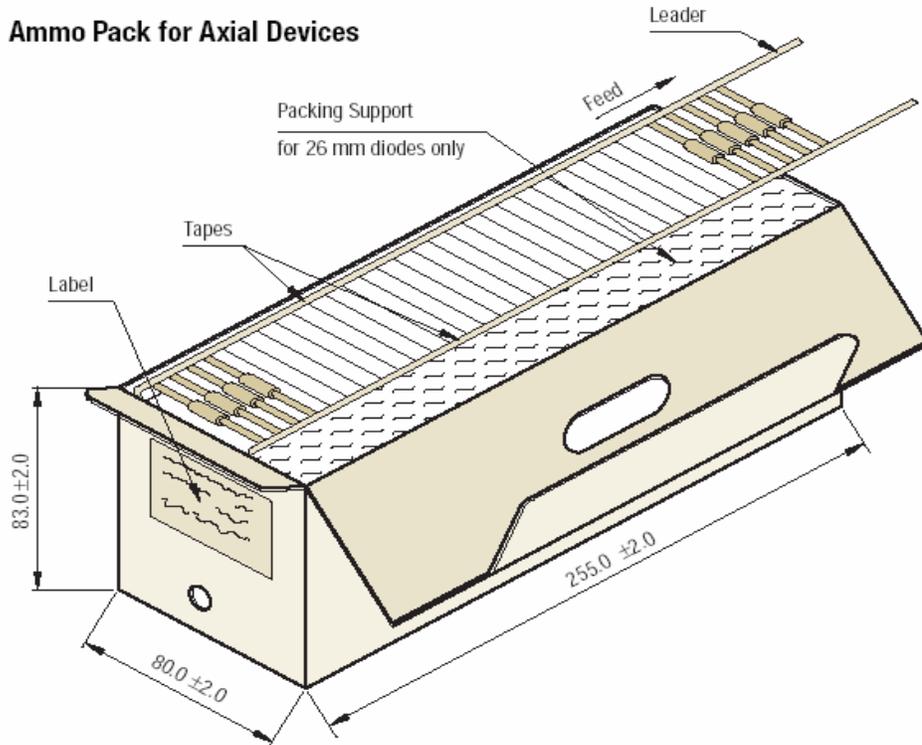
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DIM	Min	Max
A	25.40	
B	4.20	5.20
C	0.70	0.90
D	2.00	2.70

All Dimensions are in mm



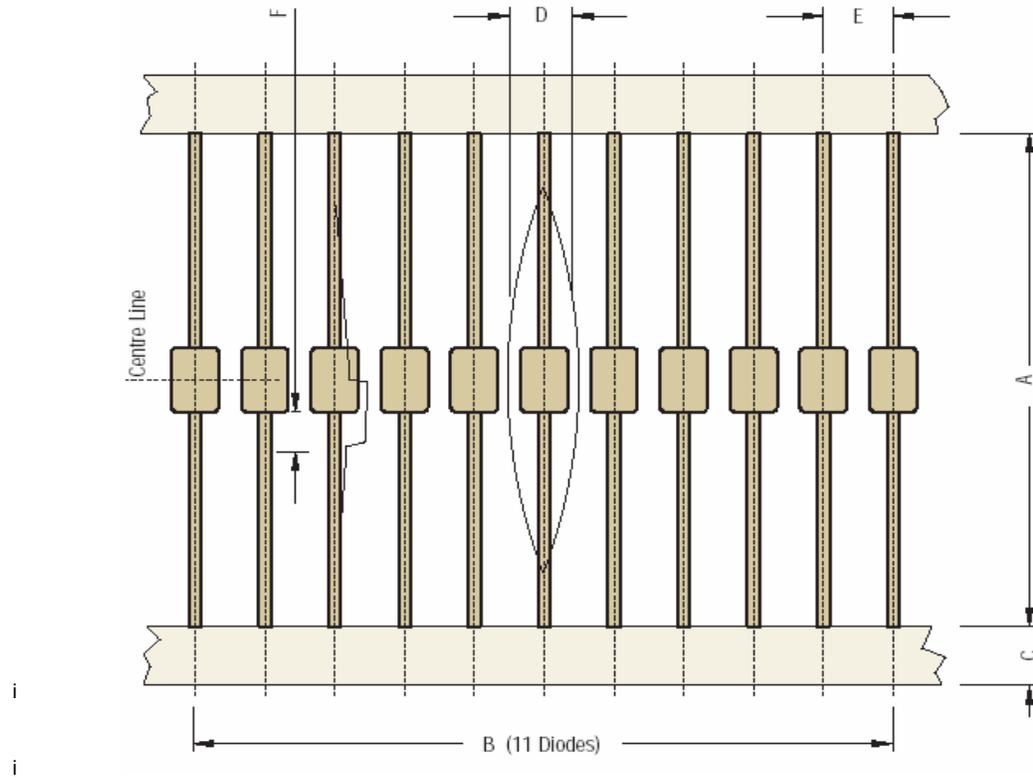


All Dimensions are in mm

Packaging Information

Package/ Case Type	Packaging Type	Std. Packing Qty	Inner Carton		Outer Carton			
			Qty	Size L x W x H (cm)	Gross Weight (Kg)	Qty	Size L x W x H (cm)	Gross Weight (Kg)
DO-41P	T&A	5,000	5K	27 x 8 x 14	1.96	45K	46 x 35 x 25	17.5

T & A: Tape and Ammo Pack



DO-41P 52 mm Tape		
DIM	Min	Max
A	50.0	54.0
B	95.0	105.0
C	5.60	6.50
D		1.5R
E	9.50	10.50
F		1.25

All Dimensions are in mm

TAPE SPECIFICATIONS

- 300 mm (Min) leader tape on every roll.
- No. of empty places allowed 0.25% without consecutive empty places.
- Ends of leads shall normally not protrude beyond the tapes.
- Components shall be held sufficiently in the tape or tapes so that they can not come free in normal handling.

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).

Customer Notes

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 Discrete 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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