

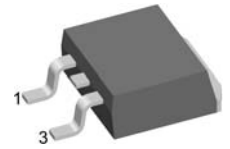
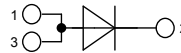
High Efficiency Standard Rectifier

Single Diode

$V_{RRM} = 800 \text{ V}$
 $I_{FAV} = 40 \text{ A}$
 $V_F = 1.15 \text{ V}$

Part number

DLA 40 IM 800 PC



Backside: cathode

Features / Advantages:

- Planar passivated chips
- Very low leakage current
- Very low forward voltage drop
- Improved thermal behaviour

Applications:

- Diode for main rectification
- For single and three phase bridge configurations

Package:

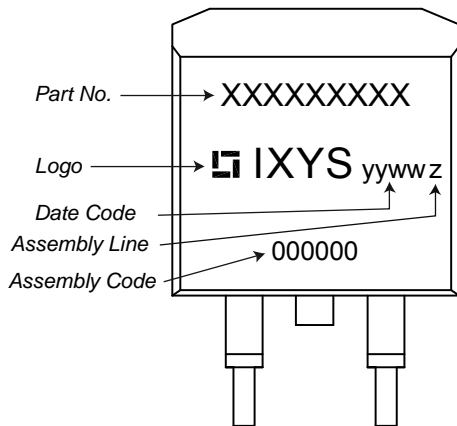
- Housing: TO-263 (D2Pak)
- Industry standard outline
- Epoxy meets UL 94V-0
- RoHS compliant

Symbol	Definition	Conditions	Ratings			Unit
			min.	typ.	max.	
V_{RRM}	<i>max. repetitive reverse voltage</i>				800	V
I_R	<i>reverse current</i>	$V_R = 800 \text{ V}$			10	μA
		$V_R = 800 \text{ V}$			0.05	mA
V_F	<i>forward voltage</i>	$I_F = 40 \text{ A}$			1.24	V
		$I_F = 80 \text{ A}$			1.47	V
		$I_F = 40 \text{ A}$			1.15	V
		$I_F = 80 \text{ A}$			1.47	V
I_{FAV}	<i>average forward current</i>	rectangular $d = 0.5$			40	A
V_{FO}	<i>threshold voltage</i>				0.81	V
r_F	<i>slope resistance</i>					
R_{thJC}	<i>thermal resistance junction to case</i>				0.80	K/W
T_{VJ}	<i>virtual junction temperature</i>		-55		175	$^{\circ}\text{C}$
P_{tot}	<i>total power dissipation</i>				185	W
I_{FSM}	<i>max. forward surge current</i>	$t = 10 \text{ ms}; (50 \text{ Hz}), \text{ sine}$			300	A
		$t = 8,3 \text{ ms}; (60 \text{ Hz}), \text{ sine}$			325	A
		$t = 10 \text{ ms}; (50 \text{ Hz}), \text{ sine}$			255	A
		$t = 8,3 \text{ ms}; (60 \text{ Hz}), \text{ sine}$			275	A
I^2t	<i>value for fusing</i>	$t = 10 \text{ ms}; (50 \text{ Hz}), \text{ sine}$			450	A^2s
		$t = 8,3 \text{ ms}; (60 \text{ Hz}), \text{ sine}$			440	A^2s
		$t = 10 \text{ ms}; (50 \text{ Hz}), \text{ sine}$			325	A^2s
		$t = 8,3 \text{ ms}; (60 \text{ Hz}), \text{ sine}$			315	A^2s
C_J	<i>junction capacitance</i>	$V_R = 400 \text{ V}; f = 1 \text{ MHz}$			10	pF

Symbol	Definition	Conditions	Ratings			Unit
			min.	typ.	max.	
I_{RMS}	RMS current	per terminal ¹⁾			35	A
R_{thCH}	thermal resistance case to heatsink			0.25		K/W
T_{stg}	storage temperature		-55		150	°C
Weight				2		g
F_c	mounting force with clip		20		60	N

¹⁾ I_{RMS} is typically limited by the pin-to-chip resistance (1); or by the current capability of the chip (2).
 In case of (1) and a product with multiple pins for one chip-potential, the current capability can be increased by connecting the pins as one contact

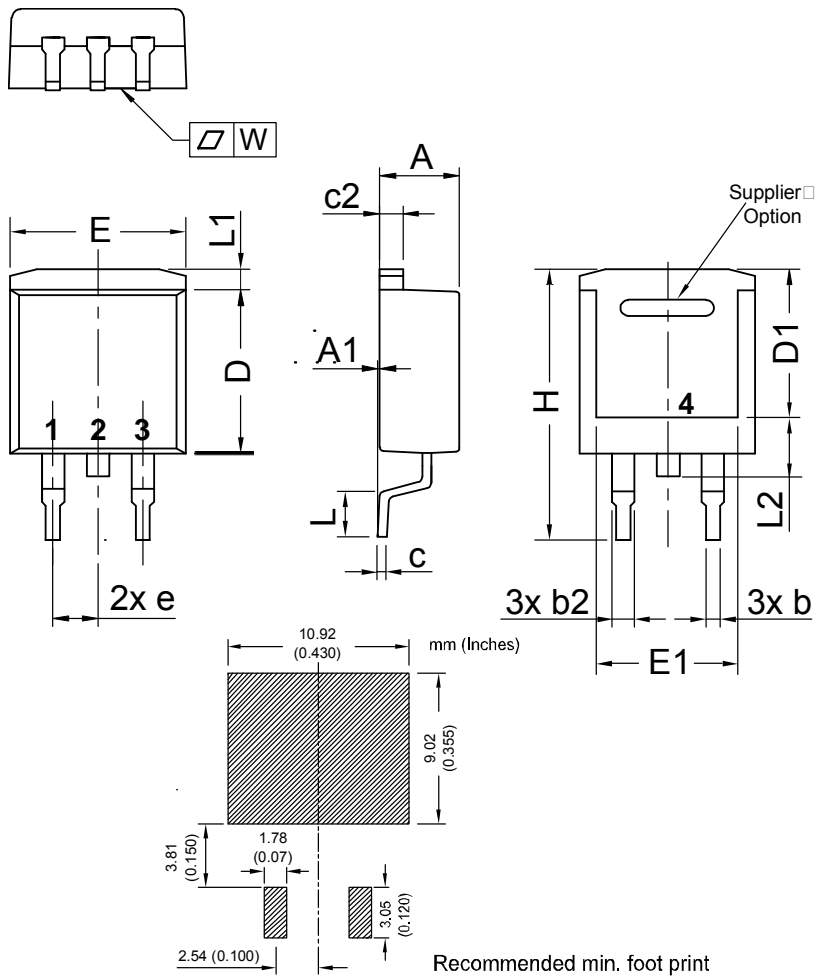
Product Marking



Part number

- D = Diode
- L = High Efficiency Standard Rectifier
- A = (up to 1200 V)
- 40 = Current Rating [A]
- IM = Single Diode
- 800 = Reverse Voltage [V]
- PC = TO-263AB (D2Pak) (2)

Ordering	Part Name	Marking on Product	Delivering Mode	Base Qty	Code Key
Standard	DLA 40 IM 800 PC	DLA40IM800PC	Tape & Reel	800	509995

Outlines TO-263 (D2Pak)


Dim.	Millimeter		Inches	
	min	max	min	max
A	4.06	4.83	0.160	0.190
A1	typ. 0.10		typ. 0.004	
b	0.51	0.99	0.020	0.039
b2	1.14	1.40	0.045	0.055
c	0.40	0.74	0.016	0.029
c2	1.14	1.40	0.045	0.029
D	8.38	9.40	0.330	0.370
D1	8.00	8.89	0.315	0.350
E	9.65	10.41	0.380	0.410
E1	6.22	8.20	0.245	0.323
e	2,54 BSC		0,100 BSC	
H	14.61	15.88	0.575	0.625
L	1.78	2.79	0.070	0.110
L1	1.02	1.68	0.040	0.066
L2	1.02	1.52	0.040	0.060
W	typ. 0.02	0.040	typ. 0.0008	0.0016

All dimensions conform with and/or are within JEDEC standard.