

# Standard Rectifier

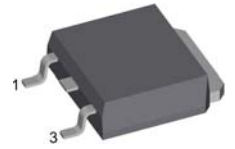
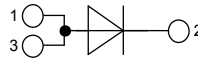
Single Diode

$V_{RRM} = 800\text{ V}$   
 $I_{FAV} = 10\text{ A}$   
 $V_F = 1.01\text{ V}$

Part number

**DLA 10 IM 800 UC**

Marking on Product: *MARLUI*



Backside: cathode

E72873

**Features / Advantages:**

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

**Applications:**

- Diode for main rectification

**Package:**

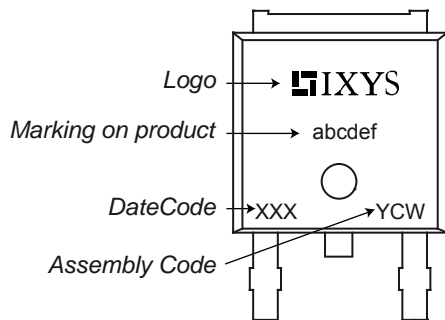
- Housing: TO-252 (DPak)
- Industry standard outline
- Epoxy meets UL 94V-0
- RoHS compliant

Symbol	Definition	Conditions	Ratings			Unit
			min.	typ.	max.	
$V_{RRM}$	max. repetitive reverse voltage				800	V
$I_R$	reverse current	$V_R = 800\text{ V}$			10	$\mu\text{A}$
		$V_R = 800\text{ V}$			0.1	mA
$V_F$	forward voltage	$I_F = 10\text{ A}$			1.10	V
		$I_F = 20\text{ A}$			1.20	V
		$I_F = 10\text{ A}$			1.01	V
		$I_F = 20\text{ A}$			1.10	V
$I_{FAV}$	average forward current	rectangular, d = 0.5			10	A
$V_{FO}$	threshold voltage	} for power loss calculation only			0.80	V
$r_F$	slope resistance				15	$\text{m}\Omega$
$R_{thJC}$	thermal resistance junction to case				3.15	K/W
$T_{VJ}$	virtual junction temperature		-55		175	$^{\circ}\text{C}$
$P_{tot}$	total power dissipation				45	W
$I_{FSM}$	max. forward surge current	t = 10 ms (50 Hz), sine			80	A
		t = 8,3 ms (60 Hz), sine			88	A
		t = 10 ms (50 Hz), sine			72	A
		t = 8,3 ms (60 Hz), sine			80	A
$I_t^2$	value for fusing	t = 10 ms (50 Hz), sine			37	$\text{A}^2\text{s}$
		t = 8,3 ms (60 Hz), sine			37	$\text{A}^2\text{s}$
		t = 10 ms (50 Hz), sine			31	$\text{A}^2\text{s}$
		t = 8,3 ms (60 Hz), sine			32	$\text{A}^2\text{s}$
$C_J$	junction capacitance	$V_R = \text{tbd V}; f = 1\text{ MHz}$		tbd		pF

Symbol	Definition	Conditions	Ratings			Unit
			min.	typ.	max.	
$I_{RMS}$	RMS current	per pin <sup>1)</sup>			20	A
$R_{thCH}$	thermal resistance case to heatsink			0.50		K/W
$T_{stg}$	storage temperature		-55		150	°C
<b>Weight</b>				0.3		g
$F_c$	mounting force with clip		20		60	N

<sup>1)</sup>  $I_{RMS}$  is typically limited by: 1. pin-to-chip resistance; or by 2. current capability of the chip.  
 In case of 1, a common cathode/anode configuration and a non-isolated backside, the whole current capability can be used by connecting the backside.

### Product Marking



- a) M = Semiconductor
- b) A = Current Rating
- c) R = Voltage Class
- d) L = Technology
- e) U = Package
- f) I = Configuration

### Part number

- D = Diode
- L = Standard Rectifier
- A = (up to 1200V)
- 10 = Current Rating [A]
- IM = Single Diode
- 800 = Reverse Voltage [V]
- UC = TO-252AA (DPak)

Ordering	Part Name	Marking on Product	Delivering Mode	Base Qty	Code Key
Standard	DLA 10 IM 800 UC	MARLUI	Tape & Reel	2500	503668

