= 2x 15A

100 V

0.73 V



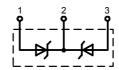
advanced

Schottky

High Performance Schottky Diode Low Loss and Soft Recovery Common Cathode

Part number (Marking on product)

DSA 30 C 100PN

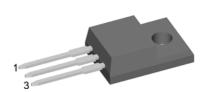


Features / Advantages:

- Very low Vf
- Extremely low switching losses
- Low Irm-values
- Improved thermal behaviour
- High reliability circuit operation
- Low voltage peaks for reduced protection circuits
- Low noise switching
- Low losses

Applications:

- Rectifiers in switch mode power supplies (SMPS)
- Free wheeling diode in low voltage converters



Package:

 $V_{RRM} =$

TO-220FPAB

- Industry standard outline
- Plastic overmolded tab for electrical isolation
- Epoxy meets UL 94V-0
- RoHS compliant

Ratings

Symbol	Definition	Conditions		min.	typ.	max.	Unit
V _{RRM}	max. repetitive reverse voltage		$T_{VJ} = 25 ^{\circ}\text{C}$			100	V
I _R	reverse current	V _R = 100 V	T _{VJ} = 25 °C			0.3	mA
		$V_{R} = 100 V$	T_{VJ} = 125 °C			2.5	mA
V _F	forward voltage	I _F = 15 A	T _{VJ} = 25 °C			0.91	٧
		$I_F = 30 A$				1.08	V
		I _F = 15 A	T _{v.i} = 125 °C			0.73	V
		$I_F = 30 A$	1 _{VJ} = 125 C			0.91	V
I _{FAV}	average forward current	rectangular, d = 0.5	$T_{\rm c}$ = 120 °C			15	Α
V _{F0}	threshold voltage slope resistance for power loss calculation only				0.46	V	
	slope resistance \(\) for power loss of	aculation only				12.4	mΩ
R _{thJC}	thermal resistance junction to case					4.20	K/W
T _{VJ}	virtual junction temperature			-55		175	°C
P _{tot}	total power dissipation		T _C = 25 °C			35	W
I _{FSM}	max. forward surge current	$t_p = 10 \text{ ms } (50 \text{ Hz}), \text{ sine}$	T _{VJ} = 45 °C			120	Α
C _J	junction capacitance	V _R = V; f = 1 MHz	T _{VJ} = 25 °C				pF
E _{AS}	non-repetitive avalanche energy	$I_{AS} = 5 A; L = 100 \mu H$	$T_{VJ} = 25 ^{\circ}C$			1.3	mJ
I _{AR}	repetitive avalanche current	$V_A = 1.5 \cdot V_R \text{ typ.; } f = 10 \text{ kHz}$				0.5	Α

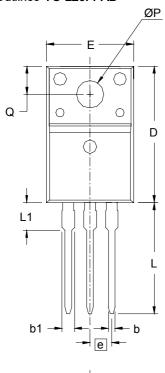


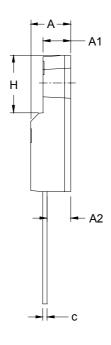
advanced

				Hatings		
Symbol	Definition	Conditions	min.	typ.	max.	Unit
I _{RMS}	RMS current	per pin*			35	Α
R _{thCH}	thermal resistance case to	heatsink		0.50		K/W
$M_{\scriptscriptstyle D}$	mounting torque		0.4		0.6	Nm
F _c	mounting force with clip		20		60	N
T _{stg}	storage temperature		-55		150	°C
Weight				2		g

^{*} Irms 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.

Outlines TO-220FPAB





SYM	INCHES		MILLIMETERS		
2114	MIN	MAX	MIN	MAX	
Α	.177	.193	4.50	4.90	
A1	.092	.108	2.34	2.74	
A2	.101	.117	2.56	2.96	
b	.028	.035	0.70	0.90	
b1	.050	.058	1.27	1.47	
С	.018	.024	0.45	0.60	
D	.617	.633	15.67	16.07	
E	.392	.408	9.96	10.36	
е	.100 BSC		2.54 BSC		
Н	.255	.271	6.48	6.88	
L	.499	.523	12.68	13.28	
L1	.119	.135	3.03	3.43	
ØΡ	.121	.129	3.08	3.28	
Q	.126	.134	3.20	3.40	