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FAST RECOVERY DIODE

ARF794LT

FOR IGBT,IEGT,GCT APPLICATIONS

SNUBBERLESS OPERATION

LOW LOSSES SOFT RECOVERY

Repetitive voltage up to	**6000 V**
Mean forward current	**1160 A**
Surge current	**20 kA**

TARGET SPECIFICATION

mar 03 - ISSUE : 2

Symbol	Characteristic	Conditions	Tj [°C]	Value	Unit
BLOCKING					
V_{RRM}	Repetitive peak reverse voltage		125	6000	V
V_{RSM}	Non-repetitive peak reverse voltage		125	6100	V
I_{RRM}	Repetitive peak reverse current	V=VRRM	125		mA
$V_{DC\ LINK}$	Permanent DC voltage		125	3200	V
CONDUCTING					
$I_{F(AV)}$	Mean forward current	180° sin ,50 Hz, Th=55°C, double side cooled		1160	A
$I_{F(AV)}$	Mean forward current	180° square,50 Hz,Th=55°C,double side cooled		1220	A
I_{FSM}	Surge forward current	Sine wave, 10 ms	125	20	kA
I^2t	I^2t	reapplied reverse voltage up to 50% VRSM		2000 x1E3	A^2s
V_{FM}	Forward voltage	Forward current = 1570 A	25	5,6	V
$V_{F(TO)}$	Threshold voltage		125	2,10	V
r_F	Forward slope resistance		125	1,40	mohm
SWITCHING					
Q_{rr}	Reverse recovery charge	I F = 1000 A di/dt= 250 A/µs VR = 100 V	125		µC
I_{rr}	Peak reverse recovery current		125		A
t_{rr}	Reverse recovery time	I F = 1000 A			µs
Q_{rr}	Reverse recovery charge	di/dt= 500 A/µs		4000	µC
I_{rr}	Peak reverse recovery current	VR = V	125	1600	A
s	Softness (s-factor), min				
E_{OFF}	Turn off energy dissipation				J
V_{FR}	Peak forward recovery	di/dt= 500 A/µs	125		V
MOUNTING					
$R_{th(j-h)}$	Thermal impedance	Junction to heatsink, double side cooled		9,5	°C/kW
$R_{th(c-h)}$	Thermal impedance	Case to heatsink, double side cooled		2	°C/kW
T_j	Operating junction temperature			-30 / 125	°C
F	Mounting force			46.0 / 54.0	kN
	Mass			1150	g

ORDERING INFORMATION : ARF794LT S 60

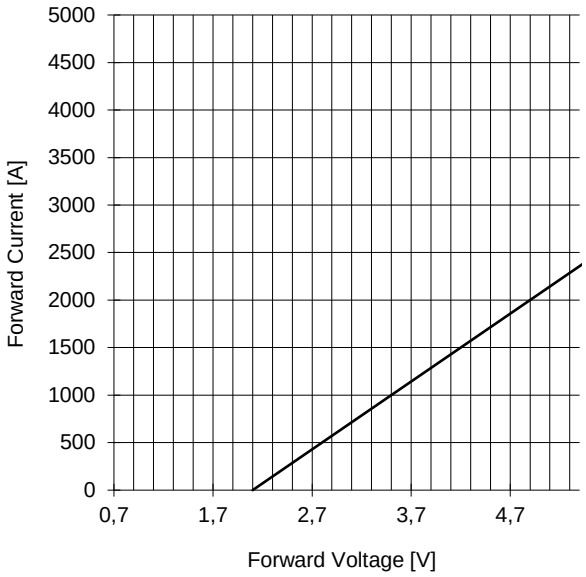
standard specification — VRRM/100

ARF794LT FAST RECOVERY DIODE

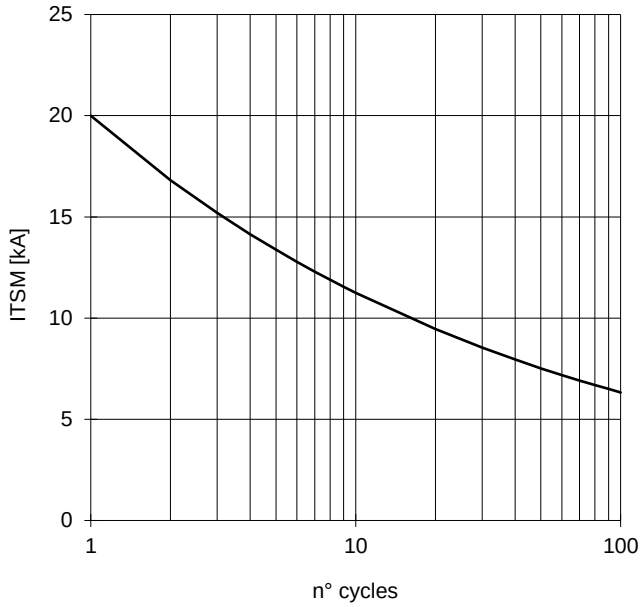
POSEICO POWER ELECTRONICS

TARGET SPECIFICATION mar 03 - ISSUE : 2

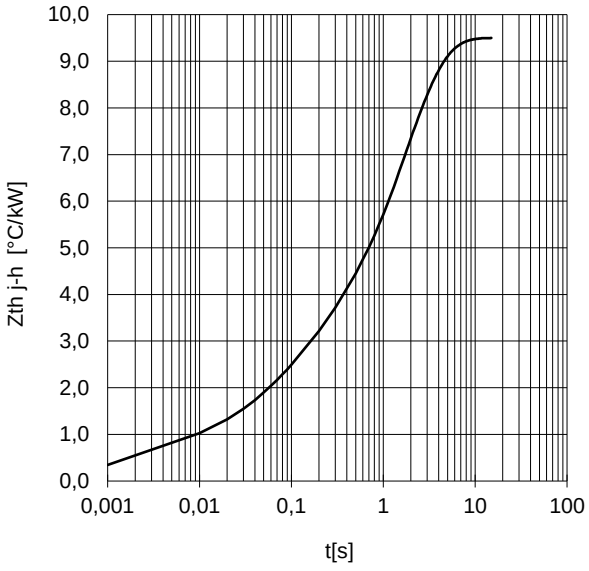
FORWARD CHARACTERISTIC
Tj = 125 °C

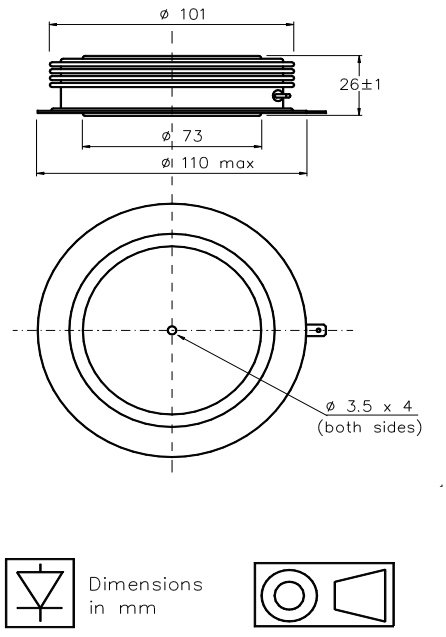


SURGE CHARACTERISTIC
Tj = 125 °C



TRANSIENT THERMAL IMPEDANCE
DOUBLE SIDE COOLED





All the characteristics given in this data sheet are guaranteed only with uniform clamping force, cleaned and lubricated heatsink, surfaces with flatness < .03 mm and roughness < 2 µm.
In the interest of product improvement POSEICO SpA reserves the right to change any data given in this data sheet at any time without previous notice.
If not stated otherwise the maximum value of ratings (simbols over shaded background) and characteristics is reported.

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