

# FrelTec

Mathildenstr. 10A  
82319 Starnberg  
Germany

## Ultra-fast Recover Rectifier TO-220

## TO-220

## SPECIFICATION

683	DFRF10A__x	T220	Y0F
Type	Type	Package	Packing
683: Ultra-fast Recover Rectifier	DFRF10A__	TO-220	Y0F: tape in Tube for 50 pc

All products according to RoHS (2015/863/EU)

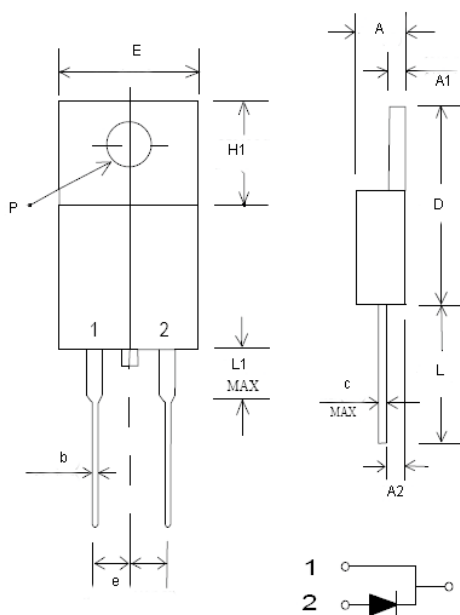
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TO-220

FrelTec  
Ultra-fast Recover Rectifier

DFRF10A\_\_

**PACKAGE OUTLINE**



DIM	MILLIMETERS	
	MIN	MAX
A	3,5	4,8
A1	1,14	1,4
A2	2,03	2,9
b	0,5	0,7
c		0,65
D	14,22	15,88
e	2,29	2,79
E	9,65	10,67
H1	5,84	6,85
L	12,7	14,7
L1	2,7	3,3
ØP		3,5

NOTE: Above package outline conforms to JEDEC TO-220AB

## TO-220

## Ultra-fast Recover Rectifier

Maximum Ratings &amp; Thermal Characteristics

Ratings at 25°C ambient temperature unless otherwise specified

	Symbols	DFRF10A 20	DFRF10A 30	DFRF10A 40	DFRF10A 60	Unit
Maximum repetitive peak reverse voltage	VRRM	200	300	400	600	V
Maximum RMS voltage	VRMS	140	210	280	420	V
Maximum DC blocking voltage	VDC	200	300	400	600	V
Maximum average forward rectified current	IF(AV)	10				A
Peak forward surge current 8,3 ms single half sine-wave	IFSM	100				A
Typical thermal resistance	R $\theta$ JC	4,0				°C/W
Operating junction and storage temperature range	Tj, TSTG	-55---+150				°C

## Electrical Characteristics

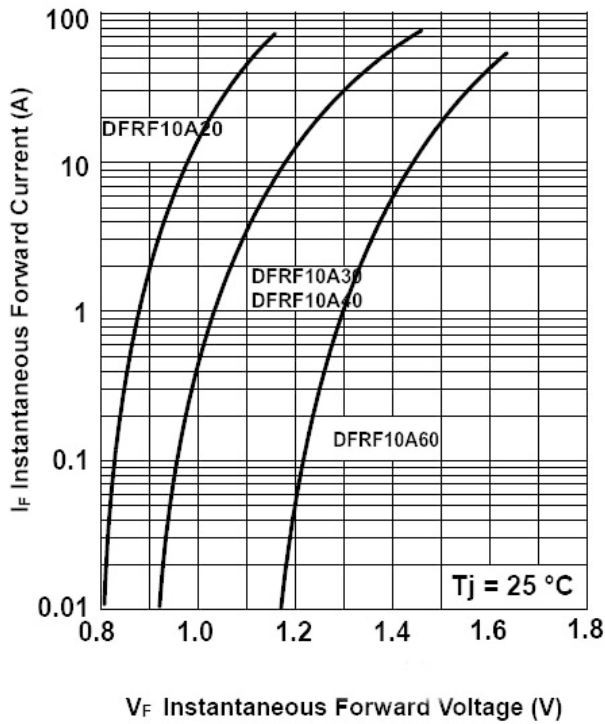
Ratings at 25°C ambient temperature unless otherwise specified.

	Symbols	DFRF10A 20	DFRF10A 30	DFRF10A 40	DFRF10A 60	Unit
IF = 10A Maximum forward voltage	VF	0,98	1,30		1,80	V
TA= 25°C Maximum reverse current TA=125°C	IR	30 250				μA
IF=0,5A IR=1,0A IREC=0,25A MAX, Reverse Recovery Time	trr	40				nS

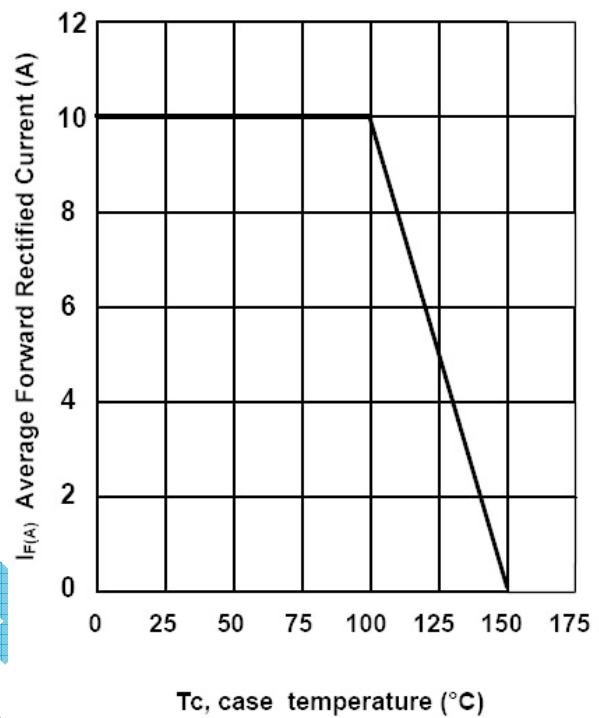
TO-220

Rating and Characteristic Curves

TYPICAL FORWARD CHARACTERISTIC

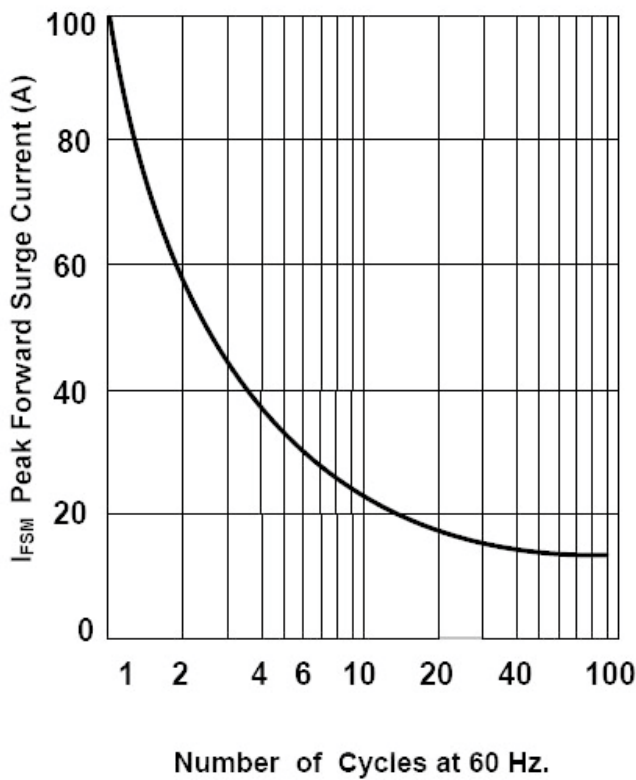


FORWARD CURRENT DERATING CURVE

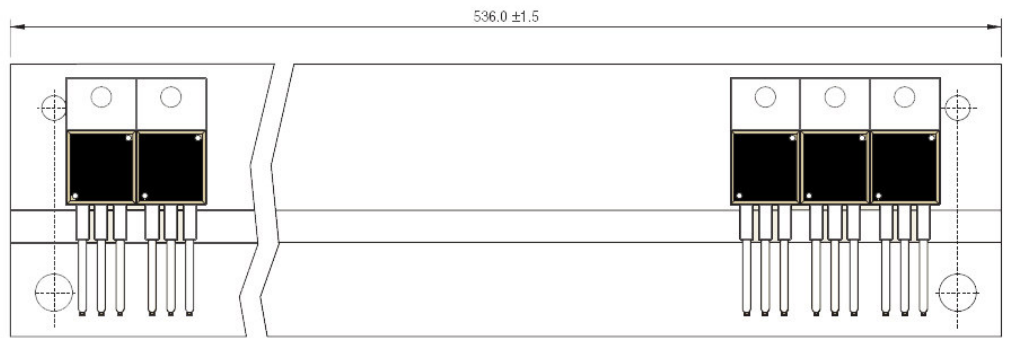
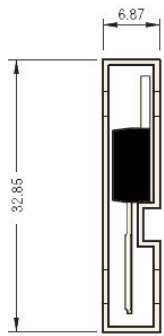


$V_F$  Instantaneous Forward Voltage (V)

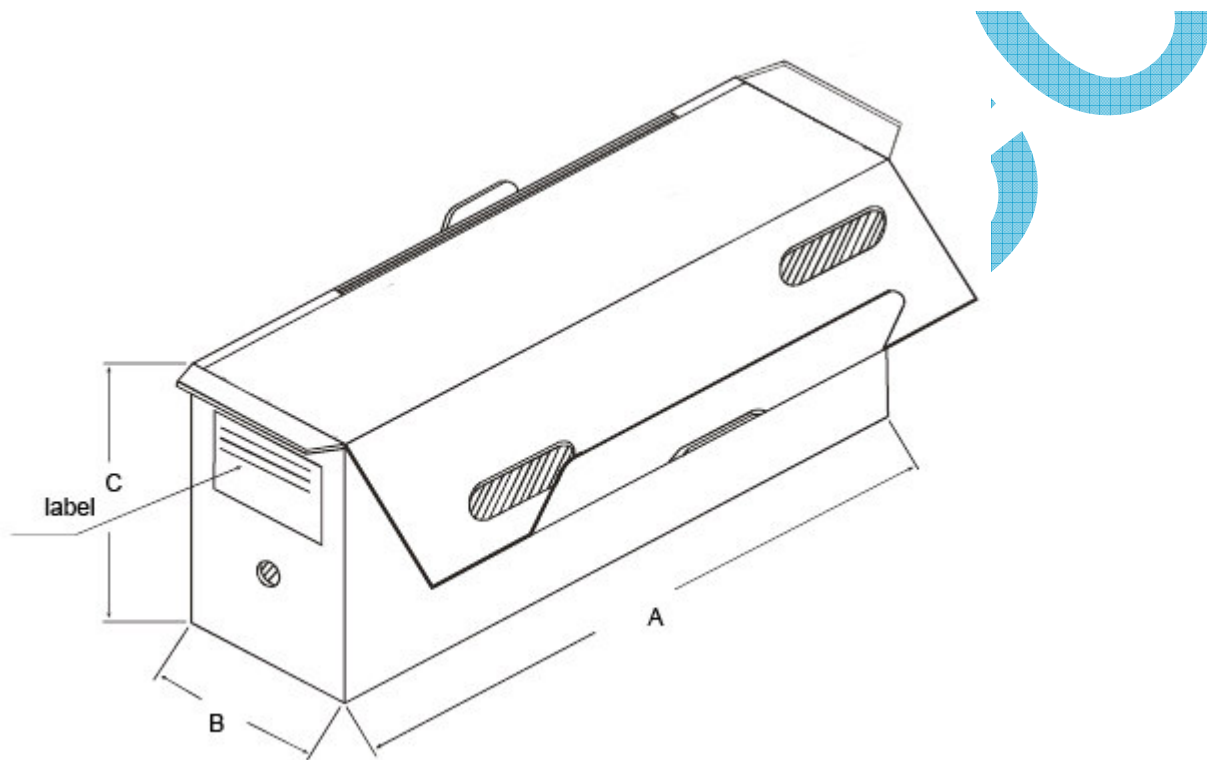
MAXIMUM NON REPETITIVE PEAK FORWARD SURGE CURRENT



TO-220  
SPECIFICATION  
**TUBE Package**

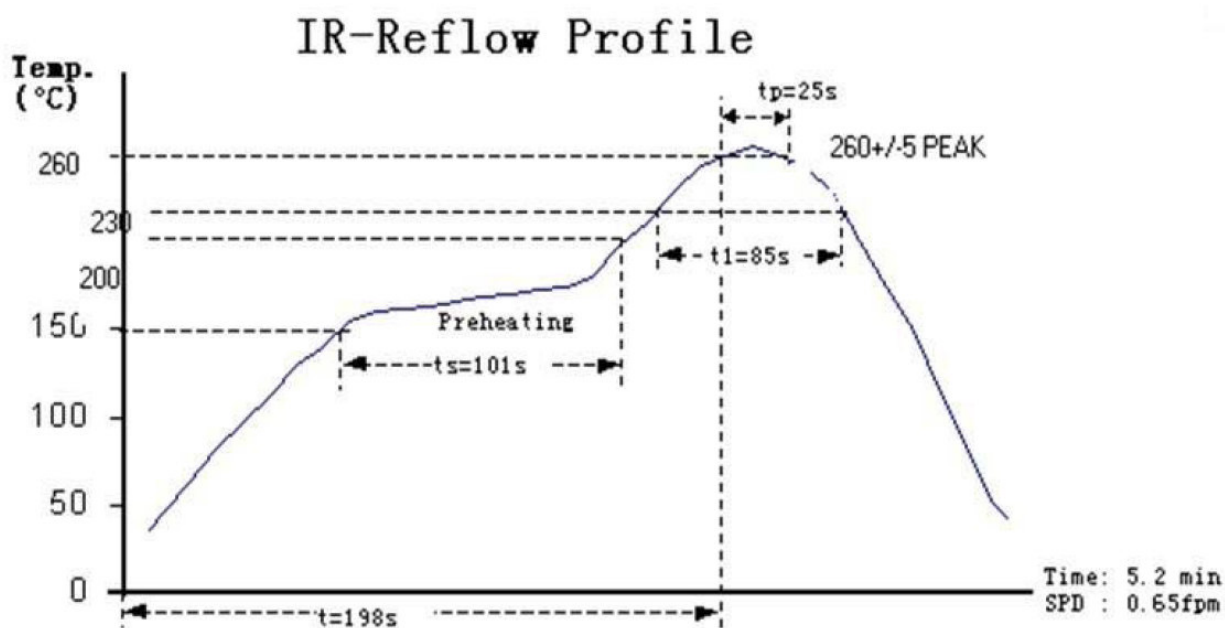


Qty: 50 Pcs/Tube



Packaging	Available Product Outlines	Dimension "A"	Dimension "B"	Dimension "C"	Quantity Box
TUBE PACK	TO220	540mm	170mm	78mm	2000 PCS

## Lead Free Reflow Soldering Profile



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## Stock period

The performance of these products, including the solderability, is guaranteed for 12 month, provided that they remain packed as they were when delivered and stored at a temperature of 0-35°C and a relative humidity 35-75%RH

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