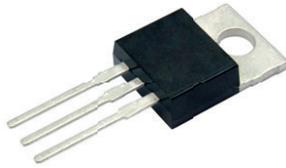
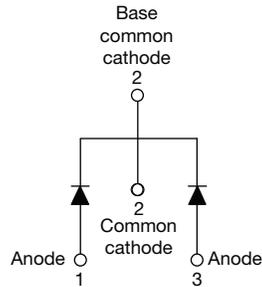


Ultrafast Rectifier, 10 A FRED Pt[®]


3L TO-220AB


FEATURES

- Ultrafast recovery time
- Low forward voltage drop
- 175 °C operating junction temperature
- Low leakage current
- Designed and qualified according to JEDEC[®]-JESD 47
- Material categorization: for definitions of compliance please see www.vishay.com/doc?99912



RoHS
COMPLIANT
HALOGEN
FREE

DESCRIPTION / APPLICATIONS

VS-MUR.. series are the state of the art ultrafast recovery rectifiers specifically designed with optimized performance of forward voltage drop and ultrafast recovery time.

The planar structure and the platinum doped life time control, guarantee the best overall performance, ruggedness and reliability characteristics.

These devices are intended for use in the output rectification stage of SMPS, UPS, DC/DC converters as well as freewheeling diode in low voltage inverters and chopper motor drives.

Their extremely optimized stored charge and low recovery current minimize the switching losses and reduce over dissipation in the switching element and snubbers.

PRIMARY CHARACTERISTICS	
Package	3L TO-220AB
$I_{F(AV)}$	2 x 5 A
V_R	200 V
V_F at I_F	0.87 V
t_{rr} typ.	See Recovery table
T_J max.	175 °C
Circuit configuration	Common cathode

ABSOLUTE MAXIMUM RATINGS				
PARAMETER	SYMBOL	TEST CONDITIONS	MAX.	UNITS
Peak repetitive reverse voltage	V_{RRM}		200	V
Average rectified forward current	$I_{F(AV)}$	per leg	5	A
		total device	10	
Non-repetitive peak surge current per leg	I_{FSM}	Rated V_R , $T_C = 149$ °C	50	
Peak repetitive forward current per leg	I_{FM}	Rated V_R , square wave, 20 kHz $T_C = 149$ °C	10	
Operating junction and storage temperatures	T_J, T_{Stg}		-65 to +175	°C

ELECTRICAL SPECIFICATIONS PER LEG ($T_J = 25$ °C unless otherwise specified)						
PARAMETER	SYMBOL	TEST CONDITIONS	MIN.	TYP.	MAX.	UNITS
Breakdown voltage, blocking voltage	V_{BR}, V_R	$I_R = 100$ μ A	200	-	-	V
Forward voltage	V_F	$I_F = 5$ A, $T_J = 125$ °C	-	0.87	0.99	
		$I_F = 10$ A, $T_J = 125$ °C	-	1.02	1.20	
		$I_F = 10$ A	-	1.12	1.25	
Reverse leakage current	I_R	$V_R = V_R$ rated	-	-	10	μ A
		$T_J = 150$ °C, $V_R = V_R$ rated	-	-	250	
Junction capacitance	C_T	$V_R = 200$ V	-	8	-	pF
Series inductance	L_S	Measured lead to lead 5 mm from package body	-	8.0	-	nH