

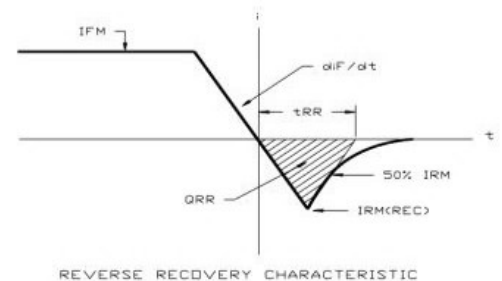
Features

- 1) Full diffusion structure
- 2) High current density
- 3) Very low on state pressure drop
- 4) Sealed ceramic tube shell packaging
- 5) Ultra low thermal resistance



Reverse blocking

Device model	V_{RRM} (1)	V_{RSM} (2)
13500/02	200V	300V
13500/04	400V	450V



V_{RRM} = Repetitive peak reverse voltage

Repetitive peak current	I_{RRM}	10Ma 75 mA (3)
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Main parameter

CHARACTERISTIC	SYMBOL	MINIMUM VALUE	MAXIMUM VALUE	TYPICAL VALUE	UNIT	TEST CONDITIONS
Mean on-state current	$I_{F(AV)}$		13500		A	SINE, $T_c = 85^\circ\text{C}$
Root Mean Square	$I_{F(RMS)}$		21200		A	
Surge on-state current	I_{FSM}		85000		A	10ms half sine wave , $V_R=0V$, $T_j = 180^\circ\text{C}$
I^2t for fusing coordination	I^2t		36100		KA^2s	10ms half sine wave , $V_R=0V$, $T_j = 180^\circ\text{C}$
Peak on-state voltage	V_{FM}		1.01		V	$I_{FM} = 6000 \text{ A}$; 25°C
Threshold voltage	V_{TO}		0.76		V	$T_j = 180^\circ\text{C}$
On-state slope resistance	r_T		0.021		$\text{m}\Omega$	$T_j = 180^\circ\text{C}$
Reverse recovery current	$I_{RM(REC)}$				A	$I_{FM} = 1000 \text{ A}$; $dI_F/dt = 10 \text{ A}/\mu\text{s}$; T_{jmax}
Reverse recovery of charge	Q_{rr}				μC	$I_{FM} = 1000 \text{ A}$; $dI_F/dt = 10 \text{ A}/\mu\text{s}$; T_{jmax}
Reverse recovery time	t_{RR}				μs	

CHARACTERISTIC	SYMBOL	MINIMUM	MAXIMUM	TYPICAL	UNIT	TEST CONDITIONS
	T_j	-40	+180		°C	
Stored temperature	T_{stg}	-40	+180		°C	
Thermal resistance Junction to case	$R_{\Theta(j-c)}$		0.0039		°C/W	double side cooled
Thermal resistance case to heatsink	$R_{\Theta(c-h)}$		0.026		°C/W	single side cooled
Creepage distance	D_s		2		mm	
Air breakdown distance	D_a		2		mm	
Installation pressure	F	35	40		kN	
Weight	W			140	g	

Outline

