

# SILICON POWER RECTIFIER- SWITCHING

**DESCRIPTION:**

The **1N3883/R** is Designed for General Purpose Fast Switching Power Supply Applications.

- **1N3883** = Cathode to Stud
- **1N3883R** = Anode to Stud

**MAXIMUM RATINGS**

$I_o$	6.0 A @ $T_C = 100^\circ\text{C}$
$I_{FSM}$	150 A (ONE CYCLE)
$V_{RWM}$	$V_R = 400\text{ V}$
$T_J$	$-65^\circ\text{C}$ to $+150^\circ\text{C}$
$T_{STG}$	$-65^\circ\text{C}$ to $+175^\circ\text{C}$
$\theta_{JC}$	$3.0^\circ\text{C/W}$

**PACKAGE STYLE DO-4**

SYMBOL	DIMENSIONS			
	INCHES		MILLIMETERS	
	MIN.	MAX.	MIN.	MAX.
A		0.405		10.28
b		0.250		6.35
c				
$\phi D$		0.505		12.82
$\phi D_1$	0.265	0.424	6.74	10.76
E	0.423	0.438	10.75	11.12
$F_1$	0.075	0.175	1.91	4.44
J	0.600	0.800	15.24	20.32
$\phi M$	0.163	0.189	4.15	4.80
N	0.422	0.453	10.72	11.50
$N_1$		0.078		1.98
S				
$\phi T$	0.060	0.095	1.53	2.41
$\phi W$	10-32	UNF-2A	10-32	UNF-2A

**CHARACTERISTICS**  $T_J = 25^\circ\text{C}$ 

SYMBOL	TEST CONDITIONS	MINIMUM	TYPICAL	MAXIMUM	UNITS
$I_R$	$V_R = 400\text{ V}$ $T_C = 100^\circ\text{C}$		10	15	$\mu\text{A}$
			0.5	1.0	mA
$V_F$	$I_F = 6.0\text{ A}$ $I_F = 19\text{ A}$ $T_C = 150^\circ\text{C}$		1.0	1.4	V
			1.2	1.5	
$t_{rr}$	$I_F = 1.0\text{ A}$ $V_R \geq 30\text{ V}$			200	nS
$I_{RM(REC)}$	$I_F = 1.0\text{ A}$ $V_R \geq 30\text{ V}$			2.0	A