

UES804-UES806

50 AMP ULTRAFAST RECTIFIERS

FEATURES

- Available as "HR" (high reliability) screened per MIL-PRF-19500, JANTX level. Add "HR" suffix to base part number.
- Available as non-RoHS (Sn/Pb plating), standard, and as RoHS by adding "-PBF" suffix.

MAXIMUM RATINGS

Rating	Symbol	UES804	UES805	UES806	Unit
Peak inverse voltage	V_R	200	300	400	V
Average DC output current @ $T_C = 100^\circ\text{C}$	I_O	50			A
Non-repetitive sinusoidal surge current (8.3ms)	I_{FSM}	600			A
Thermal resistance, junction to case	$R_{\theta JC}$	0.8			$^\circ\text{C}/\text{W}$
Operating and storage temperature range	T_{stg}	-55 to +150			$^\circ\text{C}$

ELECTRICAL CHARACTERISTICS ($T_A = 25^\circ\text{C}$ unless otherwise specified)

Part number	Working peak reverse voltage	Maximum forward voltage @ $I_F = 50\text{A}$ $t_p = 300\mu\text{s}$		Maximum reverse current @ V_{RWM}		Maximum reverse recovery time ⁽¹⁾
	V_{RWM}	V_F		I_R		t_{rr}
		$T_C = 25^\circ\text{C}$	$T_C = 125^\circ\text{C}$	$T_C = 25^\circ\text{C}$	$T_C = 125^\circ\text{C}$	
	Volts	Volts	Volts	μA	mA	ns
UES804	200	1.25	1.15	70	30	50
UES805	300	1.25	1.15	70	30	50
UES806	400	1.25	1.15	70	30	50

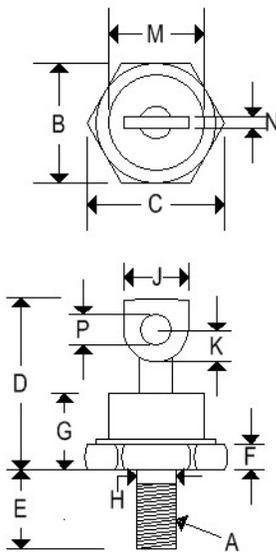
Note 1: $I_F = 0.5\text{A}$, $I_R = 1\text{A}$, $I_{REC} = 0.25\text{A}$

UES804-UES806

50 AMP ULTRAFAST RECTIFIERS

MECHANICAL CHARACTERISTICS

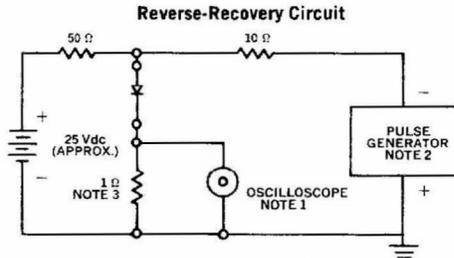
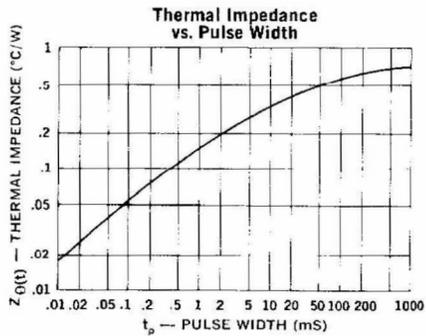
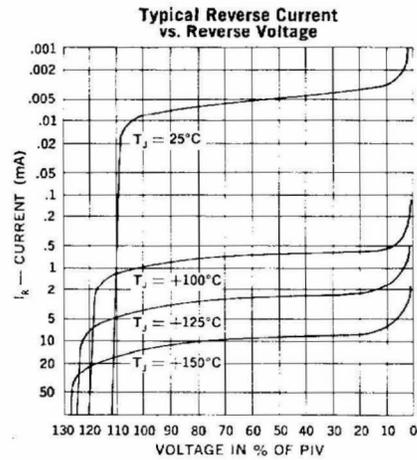
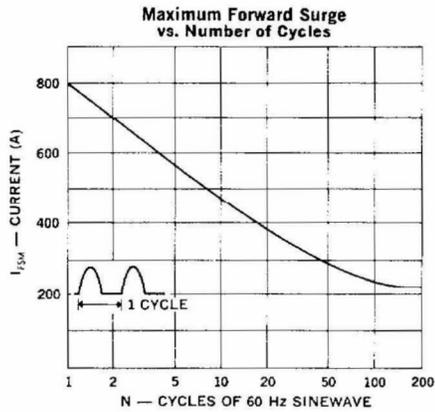
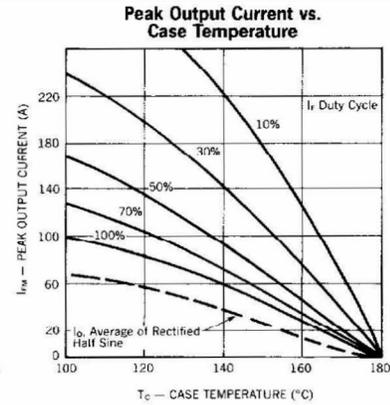
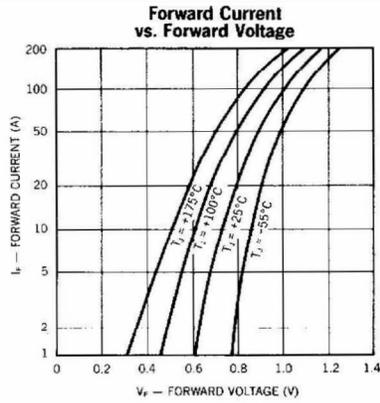
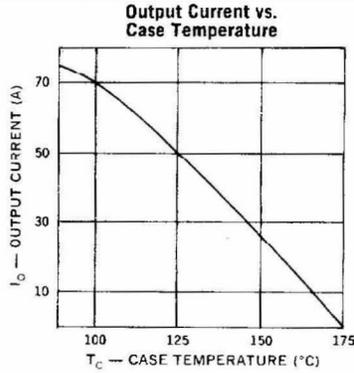
Case	DO-5
Marking	Alpha numeric
Polarity	Cathode is stud



	DO-5			
	Inches		Millimeters	
	Min	Max	Min	Max
A	1/4-28 UNF2A threads			
B	0.669	0.688	16.990	17.480
C	-	0.794	-	20.160
D	-	1.000	-	25.400
E	0.422	0.453	10.720	11.510
F	0.115	0.200	2.920	5.080
G	-	0.450	-	11.430
H	0.220	0.249	5.580	6.320
J	0.250	0.375	6.350	9.530
K	0.156	-	3.960	-
M	-	0.667	-	16.940
N	0.030	0.080	0.760	2.030
P	0.140	0.175	3.560	4.450

UES804-UES806

50 AMP ULTRAFAST RECTIFIERS



- NOTES:**
1. Oscilloscope: Rise time \leq 3ns; input impedance = 50 Ω .
 2. Pulse Generator: Rise time \leq 8ns; source impedance 10 Ω .
 3. Current viewing resistor, non-inductive, coaxial recommended.