

NPN SILICON RF POWER TRANSISTOR

DESCRIPTION:

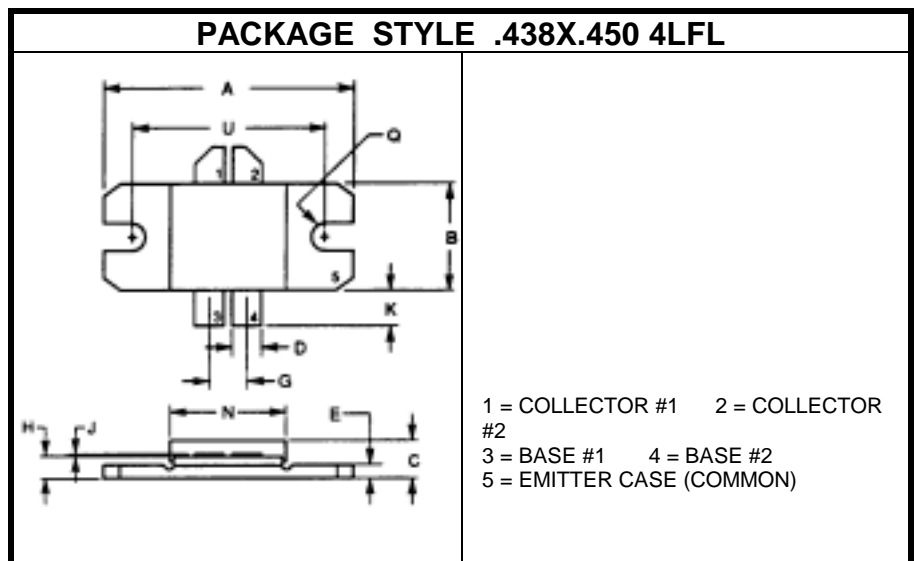
The **ASI TPV8100B** is Designed for Transmitter Output Stages Covering TV Band IV and V, Operating at 28 V.

FEATURES INCLUDE:

- Internal Input, Output Matching
- Common Emitter Configuration
- Gold Metalization
- Emitter Ballasting

MAXIMUM RATINGS

I_C	12 A
V_{CER}	40 V $R_{BE} = 10 \Omega$
P_{DISS}	215 W @ $T_C = 25^\circ C$
T_J	$-65^\circ C$ to $+200^\circ C$
T_{STG}	$-65^\circ C$ to $+150^\circ C$
θ_{JC}	$0.8^\circ C/W$


CHARACTERISTICS $T_C = 25^\circ C$

SYMBOL	TEST CONDITIONS	MINIMUM	TYPICAL	MAXIMUM	UNITS
BV_{CER}	$I_C = 10 \text{ mA}$ $R_{BE} = 75 \Omega$	30			V
BV_{CBO}	$I_C = 20 \text{ mA}$	65			V
BV_{EBO}	$I_E = 10 \text{ mA}$	4.0			V
I_{CER}	$V_{CE} = 28 \text{ V}$ $R_{BE} = 75 \Omega$			10	mA
h_{FE}	$V_{CE} = 10 \text{ V}$ $I_C = 2.0 \text{ A}$	30		120	---
G_p	$V_{CE} = 28 \text{ V}$ $I_{cq} = 2X50 \text{ mA}$ $f = 860 \text{ MHz}$	8.5			dB
η	$V_{CE} = 28 \text{ V}$ $I_{cq} = 2X50 \text{ mA}$ $f = 860 \text{ MHz}$	55			%
P_{out}	$V_{CE} = 28 \text{ V}$ $I_{cq} = 2X50 \text{ mA}$ $f = 860 \text{ MHz}$ 1.0 dB COMPRESSION (ref = 25 W)	100			W

FUNCTIONAL TESTS IN VIDEO (STANDARD BLACK LEVEL)

P_{out}	$V_{CE} = 28 \text{ V}$ $I_{cq} = 2X50 \text{ mA}$ $f = 860 \text{ MHz}$	125			W
P_{out}	$V_{CE} = 32 \text{ V}$ $I_{cq} = 2X25 \text{ mA}$ $f = 860 \text{ MHz}$	150			W