NPN SILICON RF POWER TRANSISTOR

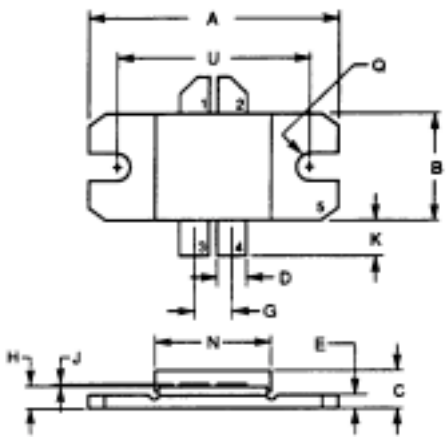
DESCRIPTION:

The **ASI TPV8100** 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

PACKAGE STYLE .438X.450 4LFL



1 = COLLECTOR #1 2 = COLLECTOR #2
3 = BASE #1 4 = BASE #2
5 = EMITTER CASE (COMMON)

MAXIMUM RATINGS

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

CHARACTERISTICS T_C = 25 °C

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

FUNCTIONAL TESTS IN VIDEO (STANDARD BLACK LEVEL)

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