

# NPN SILICON RF POWER TRANSISTOR

**DESCRIPTION:**

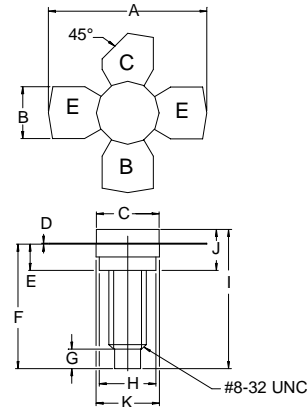
The **ASI ULBM10** is a gold metallized RF power transistor designed for 12.5 V, Class-C application in 450-512 MHz frequency range. It utilizes emitter ballasting for high reliability and ruggedness.

**FEATURES:**

- Common Emitter, Class-C 12.5 V
- $P_G = 7.0$  dB at 10 W/470 MHz
- **Omnigold™** Metalization System

**MAXIMUM RATINGS**

$I_C$	2.5 A
$V_{CBO}$	36 V
$V_{CEO}$	16 V
$V_{CES}$	36 V
$V_{EBO}$	4.0 V
$P_{DISS}$	58 W @ $T_C = 25$ °C
$T_J$	-65 °C to +200 °C
$T_{STG}$	-65 °C to +150 °C
$\theta_{JC}$	3.0 °C/W

**PACKAGE STYLE .280 4L STUD**


DIM	MINIMUM inches / mm	MAXIMUM inches / mm
A	1.010 / 25.65	1.055 / 26.80
B	.220 / 5.59	.230 / 5.84
C	.270 / 6.86	.285 / 7.24
D	.003 / 0.08	.007 / 0.18
E	.117 / 2.97	.137 / 3.48
F	.572 / 14.53	
G	.130 / 3.30	
H	.245 / 6.22	.255 / 6.48
I	.640 / 16.26	
J	.175 / 4.45	.217 / 5.51
K	.275 / 6.99	.285 / 7.24

**ORDER CODE: ASI10682**
**CHARACTERISTICS**  $T_C = 25$  °C

SYMBOL	TEST CONDITIONS	MINIMUM	TYPICAL	MAXIMUM	UNITS
$BV_{CEO}$	$I_C = 20$ mA	16			V
$BV_{CES}$	$I_C = 25$ mA	36			V
$BV_{EBO}$	$I_E = 10$ mA	4.0			V
$I_{CEO}$	$V_{CB} = 15$ V			2.0	mA
$I_{CES}$	$V_{CE} = 10$ V			3.0	mA
$h_{FE}$	$V_{CE} = 5.0$ V $I_C = 1.0$ A	10		150	---

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

SYMBOL	TEST CONDITIONS	MINIMUM	TYPICAL	MAXIMUM	UNITS
$C_{ob}$	$V_{CB} = 12.5\text{ V}$ $f = 1.0\text{ MHz}$			26	pF
$P_G$ $\eta_c$	$V_{CC} = 12.5\text{ V}$ $P_{IN} = 2.0\text{ W}$ $P_{OUT} = 10\text{ W}$ $f = 470\text{ MHz}$	7.0	60		dB %

**IMPEDANCE DATA**

FREQ	$Z_{IN}(\Omega)$	$Z_{CL}(\Omega)$
470 MHz	$1.5 - j2.7$	$5.7 + j1.5$

$P_{IN} = 2.0\text{ W}$   
 $V_{CE} = 12.5\text{ V}$