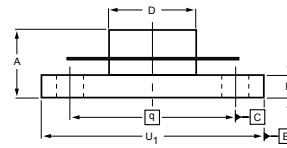


DESCRIPTION

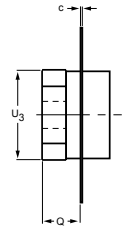
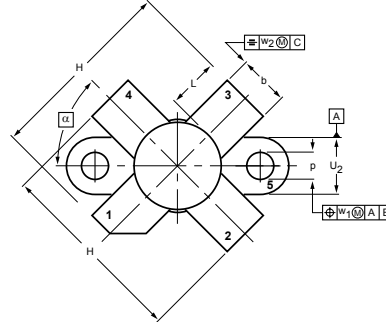
The SD1446 is a 12.5 V Class C epitaxial silicon NPN planar transistor designed primarily for land mobile transmitter applications. This device utilizes emitter ballasting and is extremely stable and capable of withstanding high VSWR under operating conditions.

FEATURES

- Specified 12.5V, 50MHz Character
- $P_o = 70W$
- $G_p = 10$ dB min. at 70 W/50 MHz
- Omnigold™ Metalization System



1. Collector
2. EMITTER
3. BASE
4. EMITTER
5. FIN


DIMENSIONS

NOTE: ALL ELECTRODES ARE ISOLATED FROM FLANGE.

UNIT	A	b	c	D	D ₁	F	H	L	p	Q	q	U ₁	U ₂	U ₃	w ₁	w ₂	α
mm	7.47 6.37	5.82 5.56	0.18 0.10	9.73 9.47	9.63 9.42	2.72 2.31	20.71 19.93	5.61 5.16	3.33 3.04	4.63 4.11	18.42	25.15 24.38	6.61 6.09	9.78 9.39	0.51	1.02	45°
inches	0.294 0.251	0.229 0.219	0.007 0.004	0.383 0.373	0.397 0.371	0.107 0.091	0.815 0.785	0.221 0.203	0.131 0.120	0.182 0.162	0.725	0.99 0.96	0.26 0.24	0.385 0.370	0.02	0.04	

MAXIMUM RATINGS

CHARACTERISTICS	SYMBOL	RATINGS	UNITS
Collector-Base Voltage	V_{CBO}	36	V
Collector-Emitter Voltage	V_{CES}	36	V
Collector-Emitter Voltage	V_{CEO}	18	V
Collector Current	I_C	12	A
Emitter-Base Voltage	V_{EBO}	3.5	V
Collector Power Dissipation	P_{DISS}	183	W
Junction Temperature	T_J	-65 to 175	°C
Storage Temperature Range	T_{STG}	-65 to 175	°C

ELECTRICAL CHARACTERISTICS

CHARACTERISTICS	SYMBOL	TEST CONDITIONS	MIN.	TYP.	MAX.	UNITS
Collector-Emitter Breakdown Voltage	$V_{(BR)CEO}$	$I_C = 50mA, I_B = 0$	18	-	-	V
Collector-Emitter Breakdown Voltage	$V_{(BR)CES}$	$I_C = 100mA, V_{EB} = 0$	36	-	-	V
Emitter-Base Breakdown Voltage	$V_{(BR)EBO}$	$I_E = 10mA, I_C = 0$	3.5	-	-	V
Collector Cutoff Current	I_{CBO}	$(V_{CB} = 15V, I_E = 0)$			10	mA
DC Current Gain	h_{FE}	$V_{CE} = 5V, I_C = 5A$	10	-	-	
Collector Output Capacitance	C_{ob}	$V_{CB} = 12.5V, I_E = 0$ $f = 1MHz$	-	-	300	pF
Power Gain	G_p	$V_{CC} = 12.5V, P_{OUT} = 70W,$	10.0	-	-	dB
Collector Efficiency	η_C	$f = 50MHz, P_{IN} = 7W$	-	55.0	-	%

Note : Above parameters , ratings , limits and conditions are subject to change.