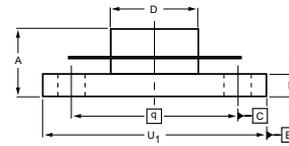


## DESCRIPTION

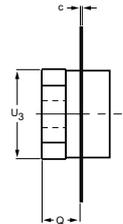
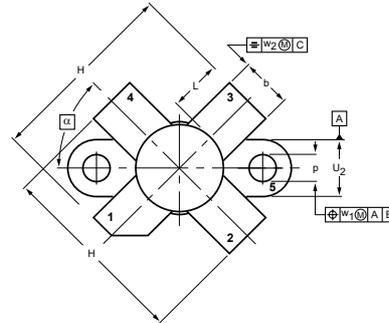
The SD1285 is a 12.5 V Class C epitaxial silicon NPN planar transistor designed primarily for land mobile transmitter applications. This device utilizes emitter ballasting and is extremely stable.

## FEATURES

- Specified 12.5V, 30MHz Characteristics
- $P_o = 20W$
- $G_p = 15 \text{ dB}$  at 20 W/30 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 <sub>1</sub>	F	H	L	p	Q	q	U <sub>1</sub>	U <sub>2</sub>	U <sub>3</sub>	w <sub>1</sub>	w <sub>2</sub>	$\alpha$
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	$V_{CB0}$	36	V
Collector-Emitter Voltage	$V_{CES}$	36	V
Collector-Emitter Voltage	$V_{CEO}$	18	V
Collector Current	$I_C$	4.5	A
Emitter-Base Voltage	$V_{EBO}$	4	V
Collector Power Dissipation	$P_{DISS}$	80	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	$V_{(BR)CEO}$	$I_C=50\text{mA}, I_B=0$	18	-	-	V
Collector-Emitter Breakdown Voltage	$V_{(BR)CES}$	$I_C=50\text{mA}, V_{EB}=0$	36	-	-	V
Emitter-Base Breakdown Voltage	$V_{(BR)EBO}$	$I_E=5\text{mA}, I_C=0$	4	-	-	V
Collector Cutoff Current	$I_{CES}$	$V_{CE}=15\text{V}, I_E=0$	-	-	5	mA
DC Current Gain	$h_{FE}$	$V_{CE}=5\text{V}, I_C=1\text{A}$	10	-	250	
Collector Output Capacitance	$C_{ob}$	$V_{CB}=12.5\text{V}, I_E=0$ $f=1\text{MHz}$	-	100.0	-	pF
Power Gain	$G_p$	$V_{CC}=12.5\text{V}, P_{OUT}=20\text{W},$	15.0	18.0	-	dB
Intermodulation Distortion	IMD	$f=30\text{MHz}$	-	-	-30	dB

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