

Micro Commercial Components

Features

Halogen free available upon request by adding suffix "-HF" Lead Free Finish/RoHS Compliant ("P" Suffix designates

Micro Commercial Components 20736 Marilla Street Chatsworth

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CA 91311

Fax:

- RoHS Compliant. See ordering information)
- Audio frequency power amplifier & medium speed switching
- Epoxy meets UL 94 V-0 flammability rating
- Moisure Sensitivity Level 1
- Marking:D1616 X

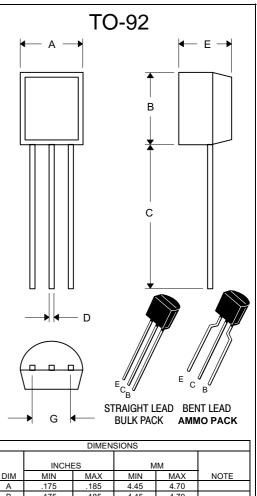
Maximum Ratings

Symbol	Rating		Rating		Unit	
V _{CEO}	Collector-Emitter Voltage					
	KSD1616		50		V	
	KSD1616A		60		v	
V _{CBO}	Collector-Base Voltage					
	KSD1616		60		V	
	KSD1616A		120			
V _{EBO}	Emitter-Base Voltage		6.0		V	
lc	Collector Current (DC)		1.0		Α	
I _{CP}	Collector Current (Pulse) ⁽¹⁾		2.0		A	
Pc	Collector power dissipation		0.75		W	
T _J	Junction Temperature		-55 to +150		°C	
T _{STG}	Storage Temperature -55 to +150			°C		
Electrical Characteristics @ 25°C Unless Otherwise Specified						
Symbol	Parameter	Min	Тур	Max	Units	
OFF CHARA	CTERISTICS					
Ісво	Collector Cutoff Current			100	nAdc	
	(V _{CB} =60Vdc, <u></u> =0)					
I _{EBO}	Emitter-Base Cutoff Current			100	nAdc	
	(V _{EB} =6.0Vdc,					
ON CHARA	CTERISTICS					
h _{FE-1}	DC Current Gain					
	(L=100mAdc, V _{CE} =2.0Vdc)					
	KSD1616	135		600		
	KSD1616A	135		400		
h _{FE-2}	DC Current Gain					
	(V _{CE} =2.0Vdc, <u>b</u> =1.0Adc)	81				
V _{CE(sat)}	Collector-Emitter Saturation Voltage ⁽²⁾ (L =1.0Adc, I_B =50mAdc)		0.15	0.3	Vdc	
$V_{\text{BE(sat)}}$	Base-Emitter Saturation Voltage ⁽²⁾ (┟=1.5Adc, I _B =75mAdc)		0.9	1.2	Vdc	
$V_{\text{BE(ON)}}$	Base-Emitter On Voltage ⁽²⁾ (V _{CE} =2.0Vdc, _b =50mAdc)	600	640	700	mVdc	
	, , ,	+	<u> </u>	<u> </u>		

KSD1616-Y/G/L

KSD1616A-Y/G

NPN Silicon Epitaxial Transistors



	INCHES		IVIIVI		
DIM	MIN	MAX	MIN	MAX	NOTE
Α	.175	.185	4.45	4.70	
В	.175	.185	4.45	4.70	
С	.500	-	12.70		
D	.016	.020	0.41	0.63	
ш	.135	.145	3.43	3.68	
G	.095	.105	2.42	2.67	Straight Lead
G	.173	.220	4.40	5.60	Bent Lead
	nmo packing d duct packaging			ck here to v	isit our website

he co Classification

 \mathbf{f}_{T}

C_{ob}

T_{ON}

t_{STG}

 T_F

Classification	Y G		L			
h _{FE-1}	135-270	200-400	300-600			

V_{CC}=10V,

I_c=100mA,

 $I_{B1} = I_{B2} = 10 \text{mA},$

V_{BE(off)}=-2~-3V

100

160

19

0.07

0.95

0.07

MHz

pF

us

us

us

(1) PW<10ms, Duty Cycle<50%

Turn On Time

Storage Time

Fall Time

(2) Pulse Test: PW<350us, Duty Cycle<2% Pulsed

Current Gain Bandwidth Product

(V_{CE}=10Vdc, \models =0, f=1.0MHz)

(L=100mAdc, V_{CE}=2.0Vdc) Collector Output Capacitance

www.mccsemi.com

Revision: D



Ordering Information :

Device	Packing	
Part Number-AP	Ammo Packing: 20Kpcs/Carton	
Part Number-BP	Bulk: 100Kpcs/Carton	

Note : Adding "-HF" suffix for halogen free, eg. Part Number-AP-HF

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